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ECOLOGICAL CONTRIBUTIONS TO SOCIOLOGY:

by Radhakamal Mukerjee, University of Lucknow, India.

ECOLOGICAL methods can be applied to many branches of sociology. They have been employed successfully, for instance, in the study of social evolution and adaptation. The works of the anthropo-geographers, Ratzel and Vidal de la Blache, had contributed to promote among various subsequent writers the regional, or what has now expanded into the ecological, outlook. The intensive methodical surveys of the Le Play school, in particular in France, clearly emphasise the importance of the physical environment in its relation to society, and especially in its effects upon occupation and family life. In the same country both Brunhes and his associate, Vallaux, have studied the physical landscape in so far as it has influenced human destinies, and also its exploitation or deformation as the measure of the power of human societies. Their influence has extended much beyond their country in eliciting meticulous local and regional studies. The German school, exemplified by Schlüter, Michotte and others, has stressed what has been called the anatomy and physiology of spaces and landscapes with a view to show the development of the cultural out of the natural landscape; Professor Patrick Geddes and his school, working both in Great Britain and recently in France, are not only using the regional survey method as a comprehensive tool of social study in definite regions and cities, but also have evolved a single, mathematical schema for presentation and co-ordination of their data. In America, Huntington has studied particularly the effects of the climatic factors on the distribution of human energy and the opportunities and limitations of civilisation in different environments. The culture area concept in the hands of Wissler, Kroeber and Herskovits, though confined to anthropological data, also has influenced sociology notably through the writings of Willey. Through all this development of social theory, the ecological approach is gradually assuming significance. The conception that man and the region are not separate but mutually inter-dependent entities, plastic, fluent, growing has been emphasised in my REGIONAL SOCIOLOGY. It outlines a programme in which the region and the web of life within it are made the subject of a new division of Sociology. Man's mastery of

his region consists not in a one-sided exploitation but in a mutual give and take, which alone can keep alive the never-ending cycle of the region's life processes. The region also is not a passive entity but a living organism which exhibits the harmonious working of different living systems such as the vegetable, the animal and the human worlds. These mutually influence one another establishing some kind of balance. Ecology, the science of the balance of species, the comprehensive physiology of life in all its forms, not only throws light on social origins but also gives the clue to an understanding of the regional balance of population.

THE inter-relations between animate and inanimate nature, and between the systems comprised within the former need to be more clearly analysed in the study of social causation. Thus along with the effects of climate, topography, soil and resources on man and his occupations, social institutions and ideals, or the effects of human communities upon one another, we have also to consider the relations between human and vegetable and animal communities, representing as they do correlated working parts in an ecological complex. Man is to be conceived (so far as his community-reaction to the environment is concerned) in terms of his different expressions of population density, and of his varying efforts to maintain this side by side with plants and animals that compete or co-operate with him for a place in the sun, and on the land. The density of population is a measurable quantity like the forces of the environment, such as temperature rainfall and soil; its increase and decrease respond to natural factors and may be subjected to such methods of study as are applied to the succession of plant communities or the numbers and distribution of animals. Thus Sociology gains in exactness through the use of the quantitative method on the basis of the ecological relation of the human community to the environment.

THERE is a balance between the natural and the vegetable and the animal environment, including the human, in which nature delights. It is maintained by chains of actions and inter-actions, which link man with the rest of his living realm, reaching up and down and all around as his invisible biological and social destiny. Such balance assumes great significance in old countries like India and China. Here we can discern, especially in the mature, densely-peopled plains, every stage of the process by which the regional balance is kept stable and how it is upset both by natural fluctuations such as are caused by cycles of rainfall or changes of landscape and river, or by long continued human actions such as the destruction of forests, non-conservative agriculture, and artificial interference with natural drainage.

PLANT and animal ecology has shown the adaptation of plant and animal associations to the region, and also to one another. Says an ecologist, " The animals and plants of a region form a vast complex

in which every organism affects every other directly or indirectly, and is in turn affected by all the others. Furthermore, all the organisms are influenced by their environment, and in turn affect the character of the environment. All the organisms are bound up with one another in an intricate network of interactions which the mind can only partially comprehend."[1] An important section of plant and animal ecology deals with the disturbances which human and animal populations bring about in the natural ordering of the array of different plants and animals formed in a given region at a particular time. Thus the ecological succession of plant and animal communities, and the interplay of the forces of the region and the animals and plants as well as of the biotic factors responsible for their development or retrogression have now come to the forefront.[2] In wild nature an abundance of rabbits leads in many parts of Europe[3] to the supersession of pine trees by heather and of heather by scrubby rushes, and of rushes by a mere carpet of grass. In the new world a heavy pressure from the small rodents as well as prairie dogs or kangaroo-rats when they form large colonies leads to the retrogression of vegetation and the initiation of secondary series. Similarly overgrazing and trampling by man's domestic stocks result in the complete destruction of the vegetable cover and the appearance of perennial or seasonal weeds in the river-plains of India. Man, by burning the forests and clearing the ground for farming, sets up a train of primary or secondary sequences in which an entire series of plant species and communities are implicated.

A NOTABLE instance of such complex sequences is found in the effect of man upon predatory animals. As population increases, and the frontiers of cultivation extend, the carnivores are ruthlessly exterminated. One result is that the rodent population enormously expands with a corresponding decrease in the yield of grazing range or cultivated field. As Weaver and Clements observe: "the destruction of predatory animals which appears to be a simple and beneficial interference, tends to defeat in some measure the very purpose it was designed to promote—the greater production of cattle and sheep." Normally the region which exhibits a definite sequence of the succession of plant and animal communities thus undergoes transformation.

MAN by brand tillage, forest clearing, indiscriminate stock-grazing, and intensive farming alters the conditions of the environment

[1] J. W. Folsom: ENTOMOLOGY WITH SPECIAL REFERENCE TO ITS ECOLOGICAL ASPECTS, p. 379.

[2] See, for instance, Tansley and Chipp: AIMS AND METHODS IN THE STUDY OF VEGETATION; McDougall: PLANT ECOLOGY, and Ritchie: THE INFLUENCE OF MAN ON ANIMAL LIFE IN SCOTLAND.

[3] Richards: STUDIES ON THE ECOLOGY OF ENGLISH HEATHS, Journal of Ecology, Vol. 14.

to such an extent that a large number of plants and animals fail to survive this onslaught. He has, again, artificially improved and fitted plants to survive particular conditions of climate and soil and imported exotic varieties from similar regions, thus continually improving the yield of his cereals and extending the frontiers of cultivation. The plants which he does not tolerate are called weeds. These are ruthlessly exterminated and some of them have become man's pauperised dependents. Many weeds again, are imported from outside as a result of man's carelessness. It has been estimated that more than half the weeds in America have been imported from Europe by the continual shipment of agricultural and horticultural products.[4] A few prickly pears introduced into Eastern Australia, and water hyacinths into the delta of Eastern Bengal—both as botanical curiosities—have now covered thousands of miles and become a serious menace to agriculture, and communications. The intentional or unintentional introduction of exotic plants and domestic animals profoundly affects the flora and fauna of the region. A new plant and animal association is established, but it will be harmonious if the time that elapses is adequate for the working out of the forces of bio-economic equilibrium. Sir J. Arthur Thomson quotes the observation that in the mountains and forests of Central Europe every spot that has been used as a human abode can be identified by the plants that grow there and the animals that visit them, long after every trace of man's habitation and handiwork has disappeared.[5] A large number of animals, some enemies, some allies, have been either entirely decimated or greatly reduced in numbers. On the other hand, in the broken balance of nature man creates more favourable conditions for certain species of animals than wild nature provides. Thus, in his cultivated fields, notably in areas where one particular crop like cotton wheat or potato is grown over a vast expanse, man has nurtured through the supply of unlimited food hordes of insect pests, parasites and fungi which it is difficult and often impossible for him to exterminate.

MODERN agriculture demands the cultivation, year after year, of large artificial areas of single crops. This has accordingly provided the insects which eat these crops with a heaven-sent opportunity to obtain unlimited food without effort and so to increase with unprecedented speed. The cotton boll weevil was an obscure beetle living largely on wild hibiscus until the appearance of vast cotton fields relieved it from the necessity of searching and competing for food. The Colorado beetle was a harmless eater of the deadly nightshade of the Rocky mountains region until American pioneers laid a trail of cultivated potatoes for it to follow. Within twenty-five years the

[4]Weaver and Clements: PLANT ECOLOGY, pp. 107, 394-95.
[5]THE NEW NATURAL HISTORY, Vol. I., p. 180.

beetle reached the Atlantic coast. And insects have by no means ceased to change their habits. The wheat-stem saw fly is a case in point. Previously the grub tunnelled in the stalks of certain grasses, and attacked those grasses only. Gradually it spread rapidly westwards through the Canadian wheat-fields, and in 1926 did £2,400,000 worth of damage in the State of Saskatchewan alone.[6] It may be mentioned in this connection that such change of food-habits reacting unfavourably on man is not confined to insects. The instance of the kea parrot of New Zealand is often adduced. When sheep-runs began in New Zealand, the kea parrot gave up berries, grubs and insects and began to tear the loins of the sheep which they found in abundance, indulging in the pleasures of carnivores. Similarly in Africa the birds known as ox-pickers were adapted to picking parasites from the tough hides of rhinoceroses. When domestic cattle were introduced the birds began to tear away with their powerful beaks the backs of the oxen.[7] Thus the introduction of new plants and animals turns harmless creatures into pests. "Agriculture, which has everywhere meant the unnatural massing of single kinds of plants and animals has not only given new opportunities to the fungi bacteria and protozoa that are the causes of most animal and plant diseases, but is an open invitation to insects. This is notably so in the tropics, where insects are abundant and their life runs quicker." Agriculture in the tropics is accordingly mostly an uphill task of controlling plant and animal diseases and fighting harmful insects. The development of means of communication also facilitates the spread of insects and animals from one country into another. It has been estimated that from among 73 of the worst insect pests of the United States, 37 have been introduced from foreign countries; of these latter most have entered America unaccompanied by natural enemies that help to keep them in check in the lands whence they originally came.[8]

On the other hand, one of the effective methods of fighting the insect menace, known as biological or natural control, consists in the search for parasites and predators in likely parts of the world and their use for the purpose of ensuring higher mortality among the pests. Man may have destroyed the giants among his enemies in the animal world, but by his own methods adopted in civilisation has multiplied his invisible and more deadly enemies. Similarly, the ravages of rats, mice, rabbits, squirrels and sparrows are instances of the abnormal increase made possible by man's interference in the animal economy with the old-established arrangement of eating and being eaten and his mass production of food for them. Zoologists have made us familiar with the interesting examples of the introduction

[6] Walter Eliot. The Economics of Insects. Contemporary Review, August 1930.
[7] The Science of Life, by H. G. Wells, Julian Huxley and G. P. Wells, pp. 679-80.
[8] A. D. Imms' article on Entomology in the Encyclopædia Britannica, 14th edition.

of the sparrow into the United States to check the ravages of the destructive elm-tree caterpillar, of the rabbits into Australia to increase the food-supply, and of the mongoose into Jamaica and the Antilles to combat the menace from rats. In all these cases man had ample reasons for repenting of his folly. The sparrows ate ripe corn as well as caterpillars ; the rabbits ate more food than they supplied ; the mongooses turned their attention to lambs kids and piglings when their supply of rats and mice ran short. It is, on the whole, true that the instances in which man has caused an increase of animals in the new man-made environment are confined to the pests. On the other hand these pests may do more harm than in wild nature simply because domesticated stocks, men and crops are found in mass in the new environment. To quote a zoologist : " In the disturbed balance of nature, man must divide the spoils with these creatures whose very existence has been made easier by his practices. We view a protracted struggle between man and other animals, all competing for supremacy with only a relatively small margin of the advantage in man's favour. This struggle is as old as man, and will doubtless continue as long as man and the insects stand as the two pinnacles in the evolutionary process."[9]

THE study of the so-called biotic and especially human interferences in ecologic succession has thus gradually been supplemented by the recognition of the harmful effects of man's unskilful and improvident interference with his organic milieu on his food-supply, health and living conditions.[10] Elton is right in his criticism that human ecology has been concerned almost entirely with biotic factors, with the effects of man upon man, disregarding often enough the trees and animals, land and water. Owing to the fact that most workers in this subject are themselves biotic factors, an undue prominence has been given in history and economics to these purely human influences.[11] The ecology of population will not only stress the importance of the intimate ecologic inter-relations of man, so grudgingly recognised by him, but in its applied aspects also demand his close alliance with the entire range of ecologic forces, his co-operation in the conservation of the land, in the use of water, in the management of forests and rivers, or in the domestication and use of his live-stock and the control of insects bacteria and parasites. A disregard of such co-operation, which is at once nature's law and wisdom, would spell man's social disaster. Such disregard often comes from man's folly, imprudence or selfishness. And its effects are both swift and devastating when men multiply in such large numbers as to become

[9]Cleave : OUR CHANGING FAUNA. TRANSACTIONS OF THE ILLINOIS STATE ACADEMY OF SCIENCE, February 1929.

[10]See Pearse : ANIMAL ECOLOGY, Ch. XII.

[11]Elton : ANIMAL ECOLOGY, p. 190.

indifferent to the needs of his future generations, habitual and confirmed offenders against the land, trees and animals, eking out a bare subsistence for himself.

MAN appears periodically to bring ruin upon himself by living disharmoniously in nature, whether in arid tracts or in fertile valleys. He denudes the mountains, depletes the pastures, and exhausts the soil and the subsoil water-reservoirs. He thus deforms the landscape and alters the conditions of soil vegetation and water-supply, making it more and more difficult for successive generations to wrest a living from a region however bountiful it might be. But the danger is not merely economic. The older the settlement, the more man-made it is. Surface tillage, defective soil and drainage, mere abundance of food, waste, overcrowding of men and herds, all favour insects, which destroy man's crops and herds and transmit fatal diseases from man to man or from animal to animal in an unbroken cycle of insect life and growth. " In a country where the conditions are settled, each species of insect is subjected to a certain fixed average percentage of parasitism, which in the vast majority of instances and in connection with numerous other controlling agencies, results in the maintenance of a perfect balance. The insect neither increases to such abundance as to be affected by disease or checked from further multiplication through lack of food, nor does it become extinct, but throughout maintains a degree of abundance in relation to other species, existing in the same vicinity, which, when averaged for a long series of years is constant." [12] In the broken balance of nature where man has introduced artificial conditions for his own benefit or as incidental to his dwelling for centuries in a given area, he has often indirectly favoured some species of insects, which have multiplied at his expense in much larger number than they could in the original state of their environment. These have now become man's most formidable rivals in the struggle of life. The disturbance of the balance of nature is accordingly often the natural result of the age of a country where man has multiplied in larger numbers than its ecological balance permits.

NATURE again has her own remedy. As in the case of animals, nature has evolved a method of regulating numbers through the complex system of food-chains and cycle of malignant epidemics, as well as through adaptive habits and other characteristics keeping them at a certain equilibrium density. She has also an analogous system for human communities. Among social insects increased co-operation and division of labour between members of the same species usually have the effect of enabling a denser population to exist on a given area, and this fact has a direct bearing on the problems concerning the numbering of the more specialised insect communities. On the other hand,

[12] Cited in Ealand, INSECTS AND MAN, p. 303.

among birds and mammals and some of the insects, division of labour between the sexes has become linked with more or less elaborate systems of territory which are required for the proper provision of an adequate supply of food for the developing of the young. A train of habits connected with nesting, courtship and watering, as well as the amount of food available in the ecological area from season to season, determines the size of the territory or the grazing and hunting ground of the higher mammals.

We see here the beginning of super-imposition of clearly discernible psychological factors on the mere biological factor of food supply as limiting animal numbers. Thus the spacing out of families whether in well-peopled hives or in nests and territories acts as a limiting factor to numbers. Besides these economic and social-psychological factors, physiological sterility of certain members of the species as well as regulation of larval feeding or internal secretions are the methods by which the proliferation of certain species of social insects which live in large aggregations is controlled. Most species of insects, however, as soon as they exceed an average density are kept down by the multiplication of birds or other predators. In a short time they are reduced to their normal numbers and the balance of Nature is restored. As insects multiply excessively, the birds and mice feed on them more voraciously, as the mice and birds reach abnormal numbers the hawks, owls, and other carnivore enemies migrate to the infested area and hunt them continuously. Thus a continuous system of food chains brings about a balance of numbers, albeit a swaying one. Thomson remarks: "Each area has its own particular association of plants and animals that are suited to the conditions, and that can live together, all finding sufficient food, often preying upon, but never exterminating one another, each species, not without effort, keeping its foothold, but not usurping more than its due place in the general harmony. Thus the balance is not the same all the world over, but varies in every area according to the conditions of climate, soil and surroundings. Even then it is not fixed; there are constant fluctuations, for the web of life is still a-weaving, and its pattern is constantly changing."

Elton's conception of niches is of great importance in the study of animal numbers as it makes clear that in each animal community there are a great many occupations or jobs as there are in the human community, each niche being filled by a particular species.[13] In different habitats occupied by other animal communities the same niches may occur, but the actual species fitting them are different in most cases though habits, numbers and size are to a large extent similar. The conception of optimum density as applied to animals like that of territories in species of birds and of niches in animal communities is

[13] See Elton: Animal Ecology, pp. 63-68; also article in the Encyclopædia Britannica, 14th edition.

an elastic one. An apparently small cause changes the size of territory and the niche of the animal, and hence the equilibrium numbers of animals vary according to locality and to economic pressure. Nature, however, sooner or later corrects matters again and the optimum numbers are restored. Where the natural predators fail to thin out the pack or swarm of animals such as mice, rats, lemmings, deer and antelopes, bacteria or protozoa take up their role, decimating the animals by thousands in a short period. Almost all the vast plagues of gnawing or herbivorous mammals in tundras, steppes or woods end in fulminating epidemics which spread with extreme rapidity and reduce the population far below its average density. Conversely, costly measures devised for fighting the plague are infructuous if Nature is not given a free hand to combat these outbursts by her own instruments. The malignant epidemic, however, does not persist, and ceases to be a scourge when the density of population decreases, the rate of circulation of the parasites being slackened. Thus both enemies, as well as diseases, strike out a normal balance of numbers with the ecological area.

MAN does not form an exception to the forces and methods which operate in the animal world for regulating numbers. Gregarious as the human community is, human numbers do not multiply up to the extreme limit of starvation. For this would hardly differentiate between desirable and undesirable human characters when the year of famine arrives. In the case of sparrows found benumbed after a heavy storm it was observed that the birds which survived had certain structural characters which those that perished did not possess. In very unfavourable years many creatures are thus examined on their power of resisting hunger or thirst or extremes of heat and cold. In very favourable years, when many creatures are at a maximum of numbers, there will be a different kind of selection, e.g., for resistance to parasitic diseases and ability of males to secure females.

EVIDENCE of discriminate elimination which is found among animals when their food supply runs short, does not hold good at least to that extent in the case of men. Thus the human group evolves an indirect method of eliminating numbers. Before it multiplies to the extent of overeating its food-supply, other checks come into operation. A gradual lowering of vitality as well as predisposition to disease due to increased economic pressure and crowding lead to increased death-rate; while the birth-rate also slackens if the population continues for long above its average abundance. The Malthusian postulate that population always thus tends to increase up to the limit of food supply is true neither of animal nor of human communities. For obviously it would be an unworkable system for gregarious animal communities in particular if no margin were left for times of food scarcity, which are bound to recur, and the entire population were liable to destruction by

starvation irrespective of individual merits. Thus "gregarious gluttony" which jeopardises the survival of the species is avoided as a result of the operation of various checks which either limit reproduction or periodically diminish numbers far below the mean. In the case of human numbers, before an actual shrinkage of food-supply acts as a direct check (although the possibility of it is always present) there is found a lower vitality of the population, which has overstepped the limit of an equilibrium density under static conditions of the arts of production and the plane of living. Recent studies by Elton, Howard, Nicholson and others of animal numbers and mechanisms of regulation and distribution in distinct ecological areas emphasise the significance of the conception of optimum density which Malthus had not perceived. As in the case of animals, men also fluctuate in numbers round about optimum density.

IN man as well as animal both below the optimum density and above it the conditions become advantageous to the species; in the case of man, who shows in certain densely peopled agricultural regions a much closer adjustment to the ecological area so far as his arts of production, and so on, are concerned, the limits of the optimum may, indeed, vary less than in the case of animals. Though the Malthusian check of a malignant epidemic or pestilence is seen to operate among certain animals like the small rodents which have big appetites and multiply very rapidly, the normal check comes from the proliferation of the animals' natural enemies which prey upon them and keep them to their normal numbers. In man the check from the inclemencies of the weather and natural enemies has ceased to operate; while famine which Malthus regards as the most fundamental positive check operates directly but seldom. Through an increase of death-rate and decrease of birth-rate man appears to reach in a few years his normal numbers again and thus the balance of nature is restored. In the densely-crowded areas of the Ganges plain, the average rural density depends upon soil, climate and agricultural water-supply (rainfall and irrigation); and where this has been exceeded there have been seen an increase of mortality, and sometimes a decrease of birth-rate, while epidemic diseases like bubonic plague and malaria have also played their part in restoring the nicely adjusted balance of numbers.[14]

BOTH among men and animals the chances of infection passing from one to another increase as populations increase in mass. Professor Topley, of Manchester, has demonstrated this experimentally in artificial mouse-populations which he has kept at different degrees of crowdedness, and the fact is a matter of common medical and veterinary observation.[15] Julian Huxley has shown that in grouse, sheer overcrowding brings conditions

[14]Radhakamal Mukerjee: OPTIMUM AND OVER-POPULATION. Indian Journal of Economics, January, 1930.

[15]Quoted in the SCIENCE OF LIFE by H. G. Wells, Julian Huxley and G. P. Wells, p. 669.

to a point at which parasites formerly harmless cause sudden epidemics. A sporadic disease breaks out in epidemic form in overstocked grasslands and woods occupied by small rodents mammals and birds as well as in densely-packed human settlements. Conversely, an infectious disease dies out if the density of its victims is too low. Sir Ronald Ross has demonstrated that if the population either of mosquitos or of men falls below a certain density in a given area the proportion of malaria infected individuals will decrease slowly but progressively to nil.[16] Where a disease is spread by a carrier, it is obvious that its incidence will depend upon the number of individuals, animals or men, it can meet. Thus the denser the population, the greater the number of contacts and possibilities of infection and the greater the rapidity of the spread of disease. The fleas of a rat dying from plague and isolated in a jungle would probably themselves die because of lack of hosts, but if the rat dies in the midst of a crowded village some at least of its parasites will probably find new hosts, whether rats or humans, and thus propagate the disease. A dense population, whether of gregarious animals or of men, affords opportunities to bacteria and parasites in two ways: (1) the abundance of hosts leads to a rapid diffusion of the epidemic; (2) the increase of economic pressure due to abundance of population lowers the general capacity to resist disease. When an epidemic breaks out in the course of migration of animals, there is added a third factor, viz., the strain caused by long journeys under new and unfavourable conditions. Birth and death-rates are to some extent as much features of ecologic adjustment as modes of land utilisation dietaries or types of labour.

Thus human animal and plant communities are subject to similar rules, though shifting ones, which maintain a balance and rhythm of growth for all. Each community cannot appropriate more than its due place in the general ordering of life, from which nothing can be obtained without influencing everything else. Working symbiotically, they represent inter-woven threads of a complex web of life. No one thread can be isolated. None can be snapped or removed without the whole garment of the life of nature and human society being disfigured. The warp and the woof of the garment have become increasingly coherent as organic evolution has advanced. The inter-linkages of a fig-tree, an earth-worm, a rat and a bird are many, but the threads make much more intricate patterns as we reach the social economy of man. Though man often tears asunder the fabric through ignorance or selfishness social progress no doubt consists in consciously weaving the forces of nature and society into finer and finer patterns of correlation and solidarity. It is the knowledge and respect of the intricacy of the web of life which will guide man to his highest destiny.

[16] Quoted in the Science of Life by H. G. Wells, Julian Huxley and G. P. Wells, p. 669.

THE MARKETS AND MARKET AREA OF BURY ST. EDMUNDS: R. E. Dickinson, M.A.

BURY ST. EDMUNDS is the county and central town of West Suffolk. This county is roughly rectangular in shape and is bounded by the Little Ouse to the north, the Stour to the south, and to the east and west by north-south lines through Stowmarket and Newmarket respectively. In the southern half of the county, the dying ends of the East Anglian Heights form a low dissected upland (200—400 ft.) which is trenched by the valleys of the southward flowing tributaries of the Stour. The whole of the county north of a line through Bury is below 200 ft. in height and is drained to the north by the Lark and its tributaries. Below their upper courses in the upland, these are small sluggish streams, though their banks are liable to flood after heavy rains. In the extreme north-west is a stretch of flat country below the 100 ft. contour, the south-eastern edge of the Fens. Most of the county has a bed-rock of chalk which dips gently to the south and is widely exposed between Newmarket and Thetford. It is overlain by glacial drift deposits—chalky boulder clay in the south uplands, and sands and gravels over an extensive area north of Bury between the Lark and Ouse. In the north-west is the black diluvial soil of the Fens.

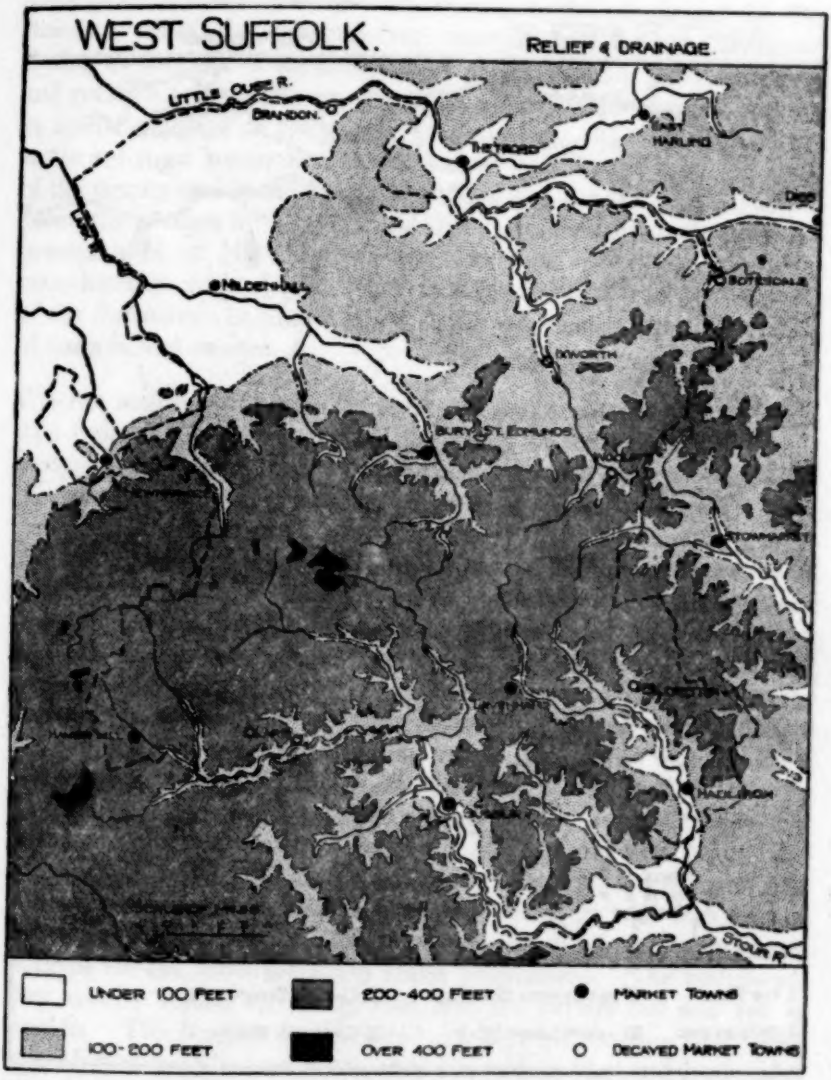
THERE are thus six distinct regions[1] in the county. (See Maps of Relief and Soil Regions.)

I. IN the north-west is a small portion of the Fens, with a black loam soil, threaded by a network of drainage ditches, intensively cultivated and with typical nucleated and street villages as opposed to the dispersion generally characteristic of West Suffolk.

II. THE Breckland, a wild of heath and extensive coniferous plantations. Its covering of glacial sand and gravel on a chalk foundation, gives a poverty stricken soil, (over 30 per cent. fine sand) which only repays cultivation during periods of high corn prices. It is so-named after the "brecks" or tracts of heath which were formerly cultivated for a few years and then allowed to revert to their primitive condition.

III. HIGH SUFFOLK, an openly dissected upland (200–400 ft.) with broad hills and dales. The soil, chalky boulder clay, is generally (a) a heavy loam (20–25 per cent. fine sand), though (b) heavy clays (with under 20 per cent. of fine sand) prevail in the extreme south-west.

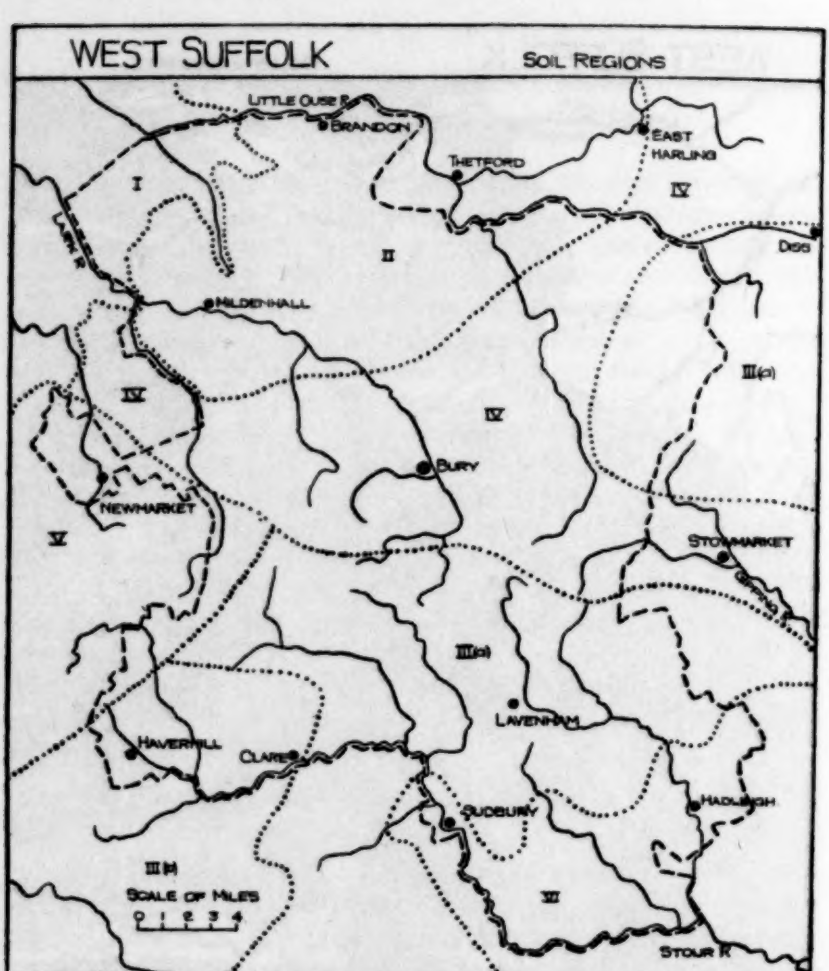
[1]Soil-classification based upon research on the soils of East Anglia by Dr. Mackenzie Taylor, of the School of Agriculture, Cambridge.



IV. Between II. and III. is a belt of gently undulating country, (usually included in High Suffolk) the distinguishing feature of which is its easily-workable light loam soil (locally termed "mixed soil") with 25–30 per cent. fine sand. This soil is eminently suited to the rearing of sheep and lambs, associated with which are many local variations of the standard type of rural economy.

V. The Chalk Downland.

VI. The Coastal Belt which extends inland up the river valleys. It is covered by glacial sand and gravel. The soil is a fertile light loam with over 30 per cent. of fine sand.



WEST SUFFOLK is primarily an arable county[2] and the Norfolk four-course rotation (roots, barley, grass, wheat) in conjunction with stall cattle feeding and sheep folding, forms the basis of its rural economy with modifications to meet local soil conditions and increase livestock carrying capacity. Approximately 70 per cent. of the 170,000 acres of arable land is given to grain crops—wheat and barley, almost equal in acreage, being the most important. They are not met with in the Breckland: elsewhere, both are evenly distributed, though the highest yields and finest qualities of barley come from the

[2]See Pryse Howell's ATLAS OF AGRICULTURE IN ENGLAND AND WALES.

Light Loam Belt. Pastures are mainly in the valleys and the Fen district, while the grazings are concentrated in the Breckland. Owing to the lack of meadow-land, the farmer relies upon root crops and rotation grasses (clover, rye, timothy, &c.) for feeding, in addition to liberal supplies of cattle cake for fattening. As regards livestock, cattle are most numerous on the heavier soils in the east and south of the county and in the Fens; and sheep (the density of which is well below the average for England and Wales) are thinly distributed on the heavier soils of High Suffolk and the Fens, but show a marked concentration in the Light Loam Belt on the south and east margins of the Breckland—a feature which is also apparent in the distribution of turnips and swedes.

WINTER stall-fed bullocks are the main cattle output of the farmer. The bulk of the store cattle are purchased in autumn, run for a few weeks on the "after-grass" and then are fattened under cover during the winter months. When the supplies of fodder are low in spring they are sold as fat cattle or as "stores" in forward condition, to be fattened on the Norfolk marshes during the summer months. The light loam soils, as we have noted, are particularly suited to sheep and lambs. Here, in order to increase livestock carrying capacity, farmers can practice various expedients in cropping such as forced root crops; coleworts (rape) sown in "layers" which are ploughed up in the autumn, and folded off in time for wheat sowing; and a more intensive use of pastures than on the heavy loams and clays. On the latter soils, however, bare fallow is essential every three or four years to keep the soil in good condition, and mangolds, peas and beans are distinctive rotation crops. Lambs fall in February and March and are kept on the ewes till the end of June; then they are fed with cake and sold as fat lambs in July and August. Farmers who do not breed buy at the summer sales and keep the sheep on the clover "layers" and stubbles till the roots are ready about Michaelmas. The turnips are then usually folded on the ground and the swedes cut and fed in troughs. The hoggets (store sheep) are kept till shearing time, then, when fodder supplies are short, they are sold in May and June either to a dealer or mainly through the repository sales.

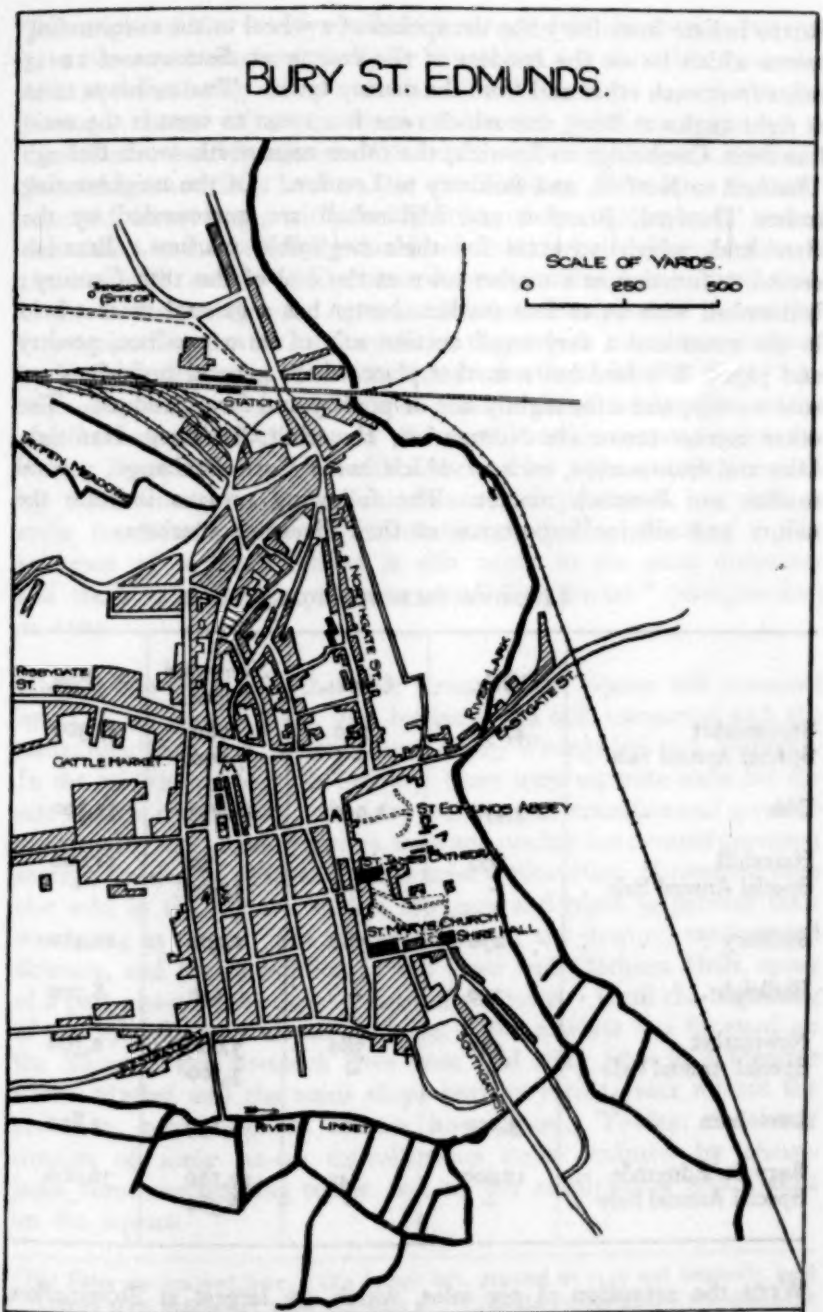
BURY ST. EDMUNDS is situated in the midst of the Light Loam Belt on the left bank of the Lark at the head of the river marshes. As a means of transport, the river has played a negligible part in the development of the town. It was originally navigable to a little below Mildenhall. In 1698, an act was passed to make it navigable as far as Bury, but owing to a misunderstanding between the Corporation and the Canal proprietors, it was only extended to Fornham, one mile below the town. The canal was again improved in 1890 when it was able to accommodate barges of 30 tons, but it has now fallen into disuse.

THE town owes its origin, name and early growth to the shrine of St. Edmund, the martyred king of East Anglia, whose body was buried there in 945. A college of secular priests were at first invested with the protection of the shrine, but they were displaced by twelve Benedictine monks in 1020. From this nucleus there evolved one of the largest monasteries in the country, only the ruins of which now remain enclosed by massive walls (and formerly, by a ditch) on three sides, with the river as a natural defence on the fourth. The town, which grew up beneath the abbey walls, was under the control and ministered to the needs of the Abbot and monks until the 16th Century, and its early growth was due to the far-famed reputation of the Abbey, and the protection and privileges afforded to it by the Abbot.

THE Abbey ruins, with two parish churches enclosed by the walls, lie above flood level and yet close to the left bank of the river Lark. To the west of the Abbey, and separated from it by the great open space known as Angel Hill, is the town with a perfect grid-iron plan with a large square market-place in the centre. The Domesday settlement consisted of some 300 houses (all erected since the time of the Confessor) clustered beneath the Abbey walls. The open fields which occupied the site of the town, were divided into " furlongs." These were separated by broad strips of uncultivated land called " baulks " and V. B. Redstone has suggested that the latter formed the foundation of the street plan of the growing town.[3]

THE market square (see town plan) has from very early times had two rows of small houses along its centre running from north to south, to the west of which are the sites of three buildings. From north to south, these are (1) the market house, used as a Corn Market and Clothiers' Hall till the opening of the 19th Century, when it was converted to the present Town Hall; (2) the original (1826) Corn Exchange, formerly an open space where stalls were held and used for a short period after 1862 as a provision market; (3) the original butchers' shambles, now the site of the new Corn Exchange opened in 1862. Around these buildings the remainder of the Great Square was and still is unbuilt upon and in the earliest map extant (Downing, 1760) there are shown the Butter Market on the east, the Beast or Hog Market on the north and the Great Market on the west. The first name still survives, but the other two are now called the Corn Hill. In this square was concentrated the civic life of the town and the markets have always been held here. Angel Hill, the second great square, was the site of the fairs held under the auspices of the Abbey, and bears evidence of former times when the Abbey dominated the life of the settlement which clustered beneath its walls.

[3] V. B. Redstone. BURY RENTALS IN 1295. Journal of the Suffolk Institute of Archeology, 1908.



M. Market Square with Town Hall (1), Site of First Corn Exchange (2) & Present Corn Exchange (3)

A. Angel Hill

4 Guild Hall

ROADS radiate from Bury like the spokes of a wheel to the surrounding towns which lie on the borders of the county at distances of 12–15 miles from each other and from the county town. Two railways meet at right angles at Bury, one which runs from east to west is the main line from Cambridge to Ipswich, the other runs north-south through Thetford to Norfolk, and Sudbury to London. Of the neighbouring towns Thetford, Brandon and Mildenhall are surrounded by the Breckland, which accounts for their negligible markets. Brandon ceased to function as a market town at the end of the 18th Century; Mildenhall with an ancient market charter has a general market held in the street and a very small auction sale of farm produce, poultry and pigs; Thetford has a market place where general provisions are sold weekly, and a fortnightly sale of poultry and farm produce. The other market towns are Newmarket, Haverhill, Sudbury, Hadleigh, Diss and Stowmarket, each of which has a Corn Exchange, general market and livestock market. The following returns indicate the nature and relative importance of their livestock markets.

LIVESTOCK SALES FOR 1927.[4]

	Cattle.	*Calves.*	*Sheep and Lambs.*	*Pigs.*
Stowmarket	4,090	1,200	780	47,300
Special Annual Sale	–	–	7,000	–
Diss	3,470	1,550	28,560	11,500
Haverhill	600	300	70	11,000
Special Annual Sale	–	–	5,000	–
Sudbury	270	780	1,200	10,410
Hadleigh	200	–	110	8,700
Newmarket	440	380	3,000	2,500
Special Annual Sale	–	–	3,300	–
Lavenham	3,250	200	1,150	2,800
Bury St. Edmunds	12,000	540	49,180	36,000
Special Annual Sale	–	–	6,580	–

WITH the exception of pig sales, which are largest at Stowmarket, Bury is by far the biggest market, over 100,000 head of stock being sold annually.

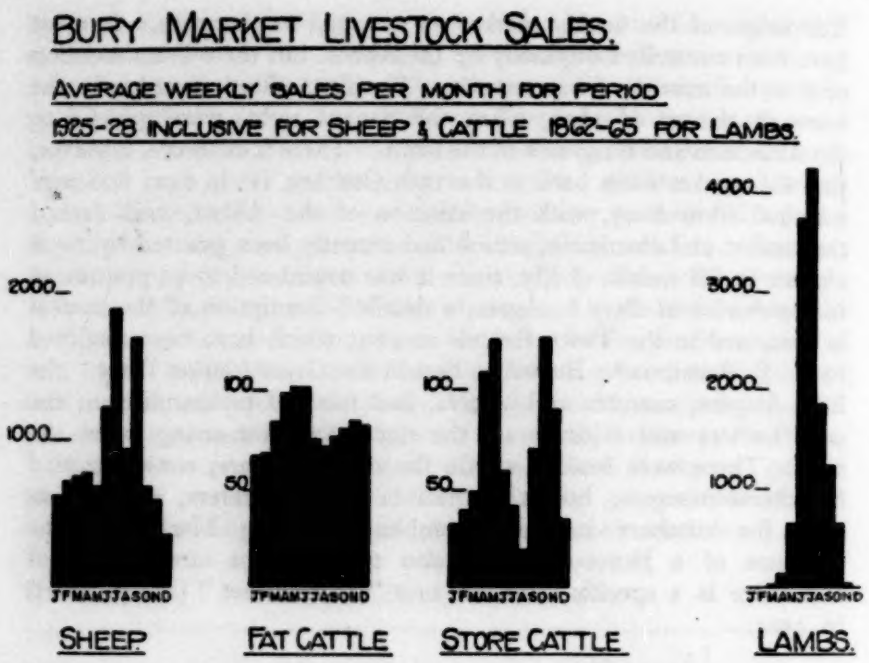
[4]Ministry of Agriculture: Economic Series No. 23. MARKETS AND FAIRS IN ENGLAND AND WALES: Part IV. Eastern and Southern Markets.

THE origin of the weekly market[5] is wrapped in obscurity. It must have been controlled originally by the Abbot, but there is no mention of it in the existing abbey records. The first official record is in the borough charter of 1606, when the market rights were granted to the Aldermen and Burgesses of the town. There is evidence, however, that the market dates back to the 12th Century, for in 1201 600 men marched from Bury, with the sanction of the Abbot, and sacked the market at Lakenheath, which had recently been granted by royal charter to the monks of Ely, since it was considered to be prejudicial to the *market at Bury*.[6] Again, a detailed description of the market is contained in the Town Rentals in 1295 which have been analysed by V. B. Redstone.[7] He writes that in the Great Market Place " the linen-drapers, mercers and spicers, had rows of mechandise on the east, tanners and skinners on the north and iron-mongers on the west. There were besides within the market square, rows occupied by cheese-mongers, butter merchants and poulterers, as well as stalls for butchers in the Shambles and Hog Market." The existence of a Horse-market is also noted in the same document and there is a specific reference to a " Shypmarket " (sheepmarket) in 1504.

NEARLY 600 years later the same Great Market Square still remained intact in its general plan, and business was still transacted with the same regularity and on the same days—Wednesday and Saturday. In the middle of the 19th Century, there were separate stalls for the sale of farm implements, fish, dairy produce and manufactured goods in the Square; and green-groceries, meat and poultry in a covered provision market, opened in 1862, and the Butchers' Shambles. Livestock were also sold in the Square, with a few pens and ropes to prevent their wandering at large. The disappearance of the drapers, tanners and skinners, and the demolition of the Wool and Clothiers Halls, speak of a past phase in the development of the town. Until the beginning of the 19th Century all the business of the markets was focussed on the Square. But livestock have been sold since 1830 in a separate Cattle Market and the retail shops have in recent years robbed the provision market of its former importance. To-day, the latter consists of some 20–30 miscellaneous stalls tenanted by cheap-jacks from surrounding towns and of the retail shops which abut on the square.

[5]The Fairs are ignored here. The largest fair, granted in 1135 and originally held three days before and after the feast of St. Matthew (Sept. 21st) was abolished in 1871, though centuries before it had run its course as an effective medium of commercial intercourse.

[6]THE CHRONICLES OF JOCELIN OF BRAKELOND, translated by T. E. Tomlins, p. 38.
[7]See Note 3 (p. 296).

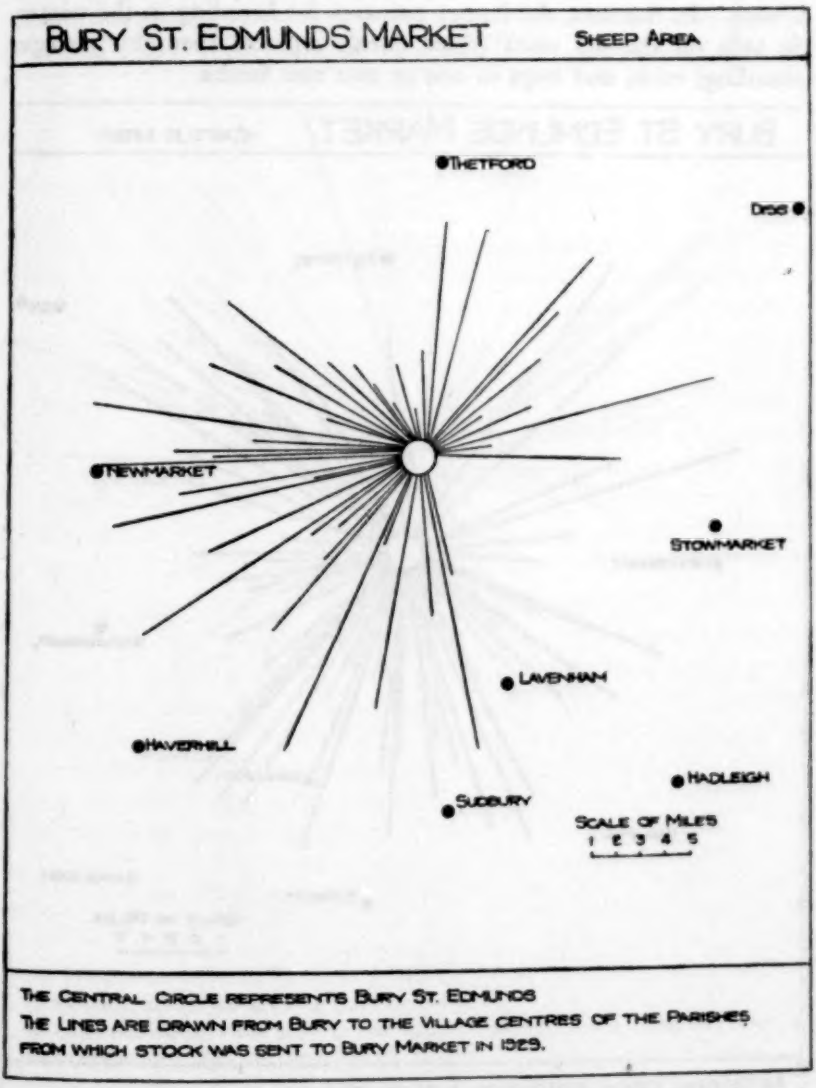


THE annual sales[8] of fat cattle have remained fairly constant since 1880, but there has been a decrease in store cattle sales from 15,000 in 1900 to 7,000 in recent years. This is to be ascribed mainly to the great decrease during the past ten years, of consignments of Irish cattle which were formerly sold by dealers in the open market. Horse sales prior to 1900 averaged 1,500 per annum, but have since decreased to about 250 per annum owing to the advent of motor traction. Pig sales show no change, reaching an average of 35,000 per annum. Sheep sales, on the other hand, show a remarkable change. They rose to a maximum of 220,000 per annum for the period 1865–70, and have since progressively decreased to 110,000 for 1895–1900 and 56,000 in recent years. During the last two decades of the 19th Century the small farmer, mainly on the heavy and sandy soils where they are least profitable, sold his sheep to meet necessary payments involved through a series of adverse seasons, and then had not the

[8]Prior to 1849 the market tolls were in the hands of a lessee so that there are no records prior to this date. From 1849–1900 there are weekly returns of neat stock and sheep to which we were kindly given access by the Town Clerk. Subsequent to 1900 we rely on (1) the tolls paid by the auctioneers, for there is no longer a borough record of numbers of livestock sold; (2) the returns of the largest firm of auctioneers, which handles 80 per cent. of the fat cattle and nearly all the sheep.

capital to restock at the current high prices. Later, flocks were depleted during the War owing to high prices, and restrictions imposed upon the movement of livestock, and the pre-war level has not since been attained.

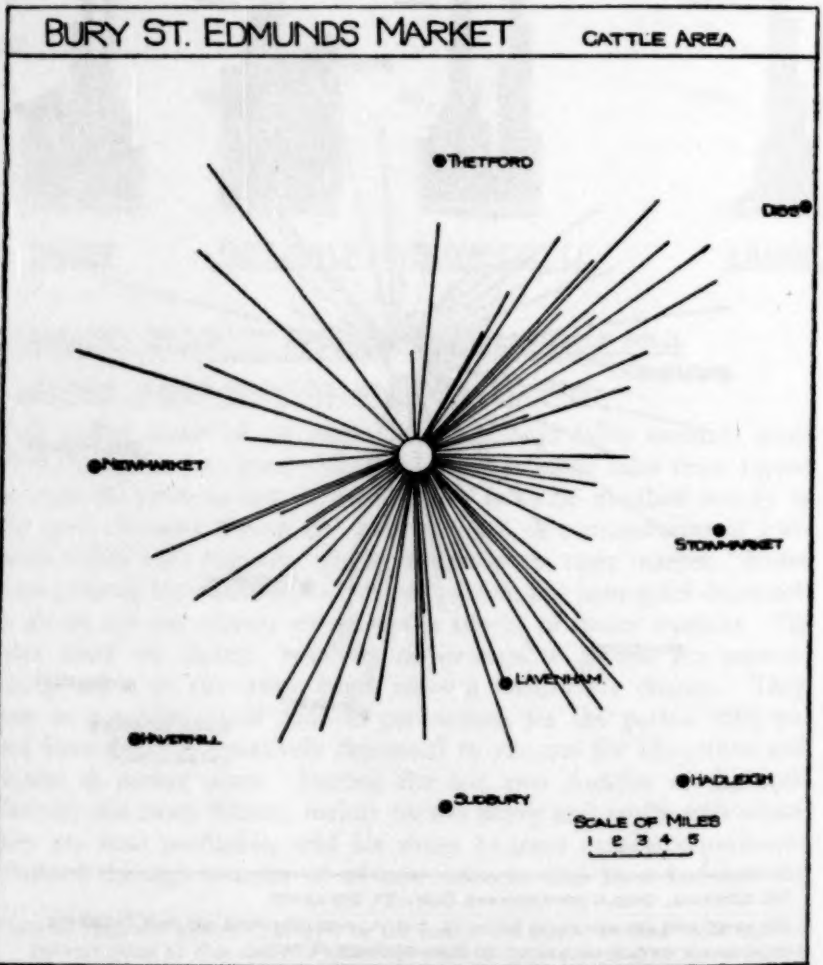
THE graphs indicate the average weekly sales of cattle and sheep in each month for the period 1925–8 inclusive, and they are to be interpreted from the preceding summary of the rural economy of the market area.[9]



[9]There are no separate returns for Lambs after 1865 and it has not been possible to obtain recent data. The period 1862-65 has therefore been selected to show the seasonal fluctuation of lamb sales.

SHEEP.

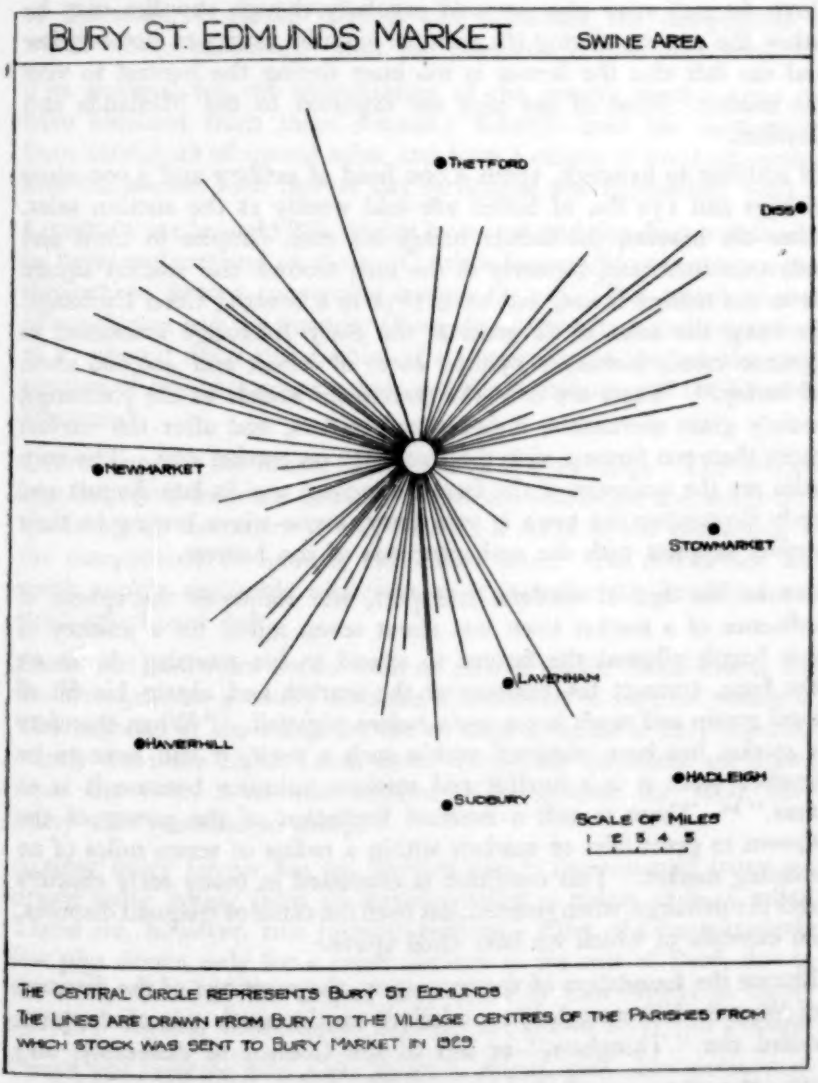
SUPPLIES of fat sheep are fairly regular throughout the year, but there is a heavy peak period from June to September. In June and July there are two special lamb sales and considerable supplies in March and April of store (hoggets, *i.e.*, last year's lambs) and fat (shearling) sheep. The September maximum is due to the Bury Sheep Fair (formerly held at Hominger two miles from the town) at which 5–7,000 sheep are sold, mainly Suffolk ewes and lambs, and rams (Suffolk chiefly, with a few Cottswolds, Lincolns and Southdowns). In Autumn, the farmer prepares for breeding in the winter. He sells off the old stock (draft ewes), replaces them by younger (shearling) ewes, and buys in one or two ram lambs.



THE CENTRAL CIRCLE REPRESENTS BURY ST. EDMUNDS.
THE LINES ARE DRAWN FROM BURY TO THE VILLAGE CENTRES OF THE PARISHES FROM WHICH STOCK WAS SENT TO BURY MARKET IN 1923.

Cattle.

The peak period for fat cattle from April to June is due to the sale of winter stall-fed bullocks which are bought by local butchers and buyers from London and the Midlands. It is estimated[10] that only about 30 per cent. per annum of all the fat cattle sold in the markets are sent outside the county, for from July to December the supply of meat does not equal the local demand and grass-fed cattle, commonly known as " grass-hoppers," are imported by dealers from the neighbouring grass counties and sold to local butchers.



[10]Ministry of Agriculture: Report on Markets and Fairs in England and Wales: Part IV. Eastern and Southern Markets, p. 102.

THERE are two peak periods for store cattle, viz.: April–May and October-November. In the Autumn farmers purchase stores mainly from the northern counties (formerly also from Ireland) for winter fattening; in Spring many of these are resold in forward condition to dealers who sell them for fattening on the Norfolk marshes; such stores will appear as fat cattle at the Autumn sales of the marshland markets, *e.g.*, Great Yarmouth.

PIGS.

BOTH fat and store pigs are sold regularly though supplies may be below the average during the summer months owing to hot weather and the fact that the farmer is too busy during the harvest to visit the market. Most of the pigs are exported to the Midlands and London.

IN addition to livestock, about 4,000 head of poultry and 3,000 score of eggs and 150 lbs. of butter are sold weekly at the auction sales. After the harvest, the farmer brings his corn samples to town and sells to a merchant, formerly in the inns around the market square or in the market house, and since 1832 in a covered Corn Exchange. In 1929, the sales of all grain at the Bury Exchange amounted to 550,000 cwts., including 134,000 cwts. of wheat and 400,000 cwts. of barley.[11] There are over 180 merchants' stands in the Exchange, mainly grain merchants, malsters and millers, and after the harvest more than 300 farmers visit the Exchange on market day. The corn sales are the mainstay of the farmer's income and in late August and early September the town is very busy, house-wives buying in their annual supplies with the cash proceeds of the harvest.

BEFORE the age of modern transport, the radius of the sphere of influence of a market town was about seven miles, for a journey of this length allowed the farmer to attend to his morning duties on the farm, transact his business at the market and obtain his fill of local gossip and reach home again before nightfall. "When therefore a market has been obtained within such a limit, it will have to be levelled since it is a hurtful and tortious nuisance because it is so near." [12] There is still a nominal limitation of the power of the Crown to grant fairs or markets within a radius of seven miles of an existing market. This condition is expressed in many early charters and the privilege, when violated, has been the cause of frequent disputes, an example of which we have cited above.

BEFORE the foundation of the monastery, the meetings of the freemen of West Suffolk were held on a hillock on the north side of the town called the "Thinghow," or hill of the Council of Assembly, and

[11] See Note [10] (p. 303).

[12] Quoted by Lipson: ECONOMIC HISTORY OF ENGLAND: The Middle Ages: p. 211.

near to this site the courts were held by the Abbot until the dissolution of the monastery. In 1583 a new Shire Hall was built in the town and the old site abandoned.

In 1041, an area consisting of eight hundred and a half, roughly co-extensive with West Suffolk and called the " Liberty of St. Edmund" was granted to the Abbot at Bury, who received the royalties of all its villages and its inhabitants were amenable to his courts, held independent of the Hundred courts. The market area was of much less extent for in addition to the existing market towns, there were markets held at Botesdale, Ixworth, Woolpit and Bildeston, the competition of which would necessarily limit the extension of the Bury area.

The material for the investigation of the present market areas we have obtained from three sources; directly from the auctioneers, from catalogues of special sales, and from a census of livestock coming into the market each market day in August and September, 1929.

Livestock are brought into market by motor, and, for shorter distances, by horse and cart and on the hoof; while buyers of large consignments dispatch to distant consuming centres by rail. The extent of each livestock area and the quantity of supplies drawn from various sections of it, depend upon the method of transport to the market, the competition of neighbouring markets and the distribution of the livestock concerned.

Cattle supplies are drawn from a radius of 8–14 miles. The heaviest supplies come from the extreme north-east, south-east and south-west quadrants of the area; it only extends 8 miles to the east owing to the competition of Ipswich and Stowmarket. The north-west and north supply negligible quantities as it includes the Breckland and the Light Loam Belt.

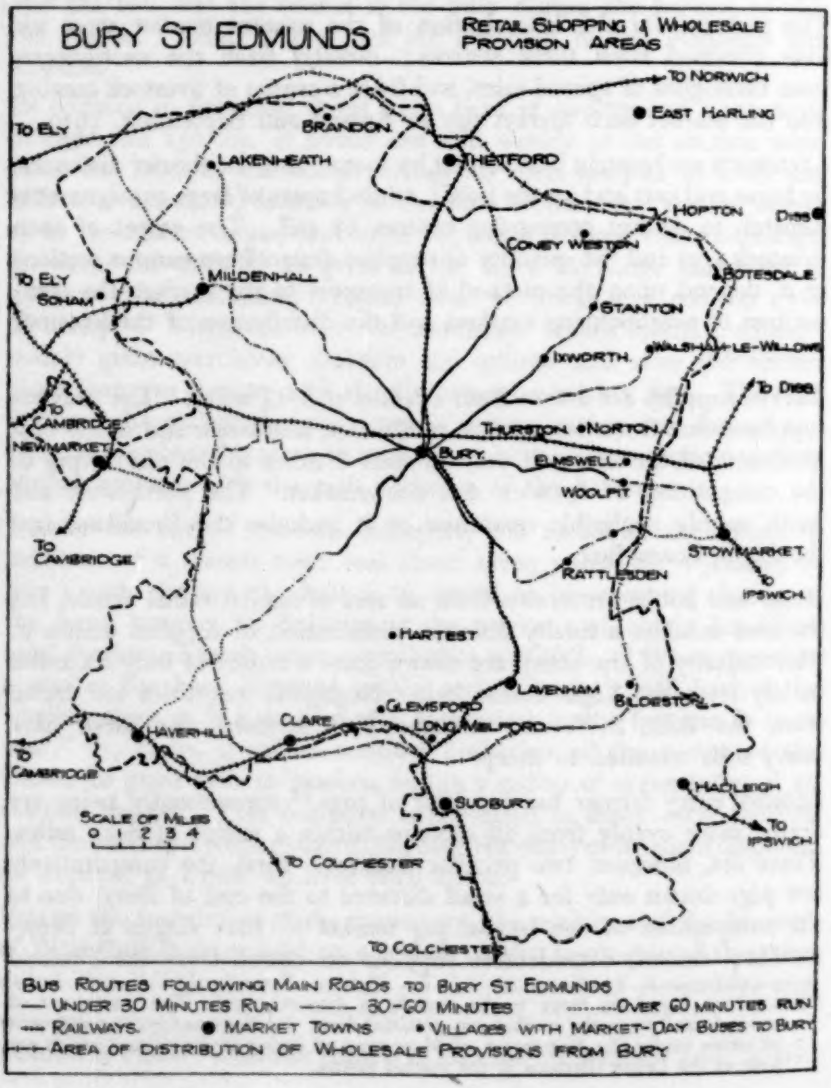
Sheep and lambs are drawn from an area of similar radial extent, but the area exhibits a totally different distribution of supplies within it. The majority of the sheep are drawn from a radius of only six miles mainly from the Light Loam Belt. Negligible quantities are drawn from the S.E., S.W. and extreme N.E. sections, for these have heavy soils unsuited to sheep.

Almost every farmer has his litter of pigs,[13] consequently swine are drawn more evenly from all sections within a radius of 8–15 miles. There are, however, two peculiar features. First, the comparatively few pigs drawn only for a small distance to the east of Bury, due to the competition of the largest pig market in East Anglia at Stowmarket; second, considerable supplies are drawn from the Fenland

[13]Swine area based on three weeks records in August, 1929. The movement of swine to and from the market was obtained from the licenses for the movement of swine under the Regulation of Movement of Swine Order (1922) which are kept at the Police Stations in the market towns.

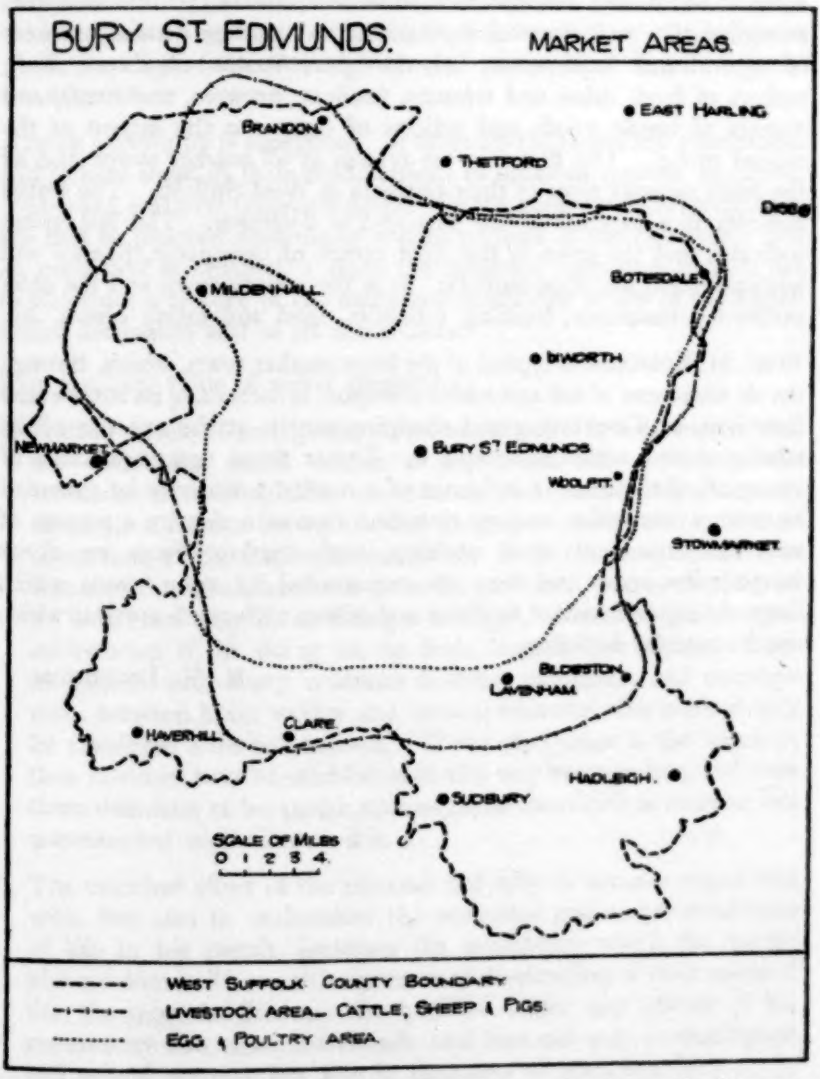
villages and from the contiguous parishes of Cambridgeshire due to the attractive prices obtained at Bury as opposed to the poor sales at Ely and Newmarket.

Eggs and poultry are drawn evenly from a somewhat smaller area, for this trade is more local and supplies are usually brought in by horse and cart. The distribution of general provisions is effected through the medium of retail shops and wholesale merchants. The sphere of influence of the town in this capacity is therefore to be obtained from (1) the daily market day bus service to the town; (2) the area within which goods are delivered by the wholesale merchants (4 in number). As regards the distribution of commodities, the villages are so small



and scattered that it does not pay retail firms to deliver their customers' orders outside Bury. The wholesale merchants deliver within a 20-mile radius, for, as deliveries are made by motor, this is the distance which can best be covered by a van leaving the warehouse at 9.0 a.m. and returning at 6.0 p.m. It is not often that this limit is reached owing to the competition of wholesalers in other towns.

THE composite market area extends south to include the small towns along the Stour valley: it is restricted in its east-west extension by the towns of Stowmarket and Newmarket; Sudbury



The livestock area is generalised from the maps of the cattle, sheep and swine areas.

and Hadleigh, but extends to the N.E. and N.W. around the Breckland to include the villages focussed on Botesdale and the Fenland villages respectively. To the north, beyond the Breckland, some villages sell their livestock at Bury and Brandon and Thetford lie commercially within its sphere of influence.

As a market town, Bury is invested with varied administrative and commercial functions, and engages in typical industries which draw their supplies from, and distribute their goods mainly within, West Suffolk. According to the 1921 Census there were approximately 7,000 occupied persons, 450 of whom were engaged in agriculture, 2,000 in secondary miscellaneous industries, and 4,550 in commerce, administration and personal service. Metal workers (mainly makers of agricultural implements, wheelwrights, motor engineers, &c.), makers of food, drink and tobacco, (millers, brewers, maltsters), and makers of textile goods and articles of dress are the largest of the second group. The first two are typical of all market towns and all the firms transact most of their business in West Suffolk. The textile industry is a survival of the past and is declining. The last group indicates that the town is the chief centre of commerce, finance and administration for West Suffolk. It is the county town and the chief centre for insurance, banking, solicitors, land and estate agents, &c.

BURY ST. EDMUNDS is typical of the large market town, which, through the development of rail and motor transport is increasing its commercial functions, as a marketing and shopping centre, at the expense of the smaller towns which surround it. Under these new conditions of transport, the sphere or influence of a market town may be extended to some 15–20 miles, and we thus find that as a rule by a process of selection dependent upon nodality, such market towns are about 20–30 miles apart and they are surrounded by some towns which formerly enjoyed market facilities and others with small markets which are frequently declining.

R. E. DICKINSON.

SOCIAL GEOGRAPHY AND ITS DESIRABILITY IN SCHOOLS OF DIVINITY: by Dr. J. Moscheles, Prague.

SOCIAL geography is applied human geography. If by geography we understand the science of the forms and occurrences on the Earth's surface, and by human geography, therefore, the science of those forms and occurrences on the Earth's surface which can be traced to the activity of man, then social geography treats these forms and occurrences in a given region as they are caused by a human group under the influence of natural conditions and of the activity of other human groups. Further, it has to examine the influence which in their turn these forms and occurrences have on social conditions.

HUMAN geography is analytical. It takes up the individual phenomena and follows them in their modifications in different regions, countries, continents, and over the whole globe. In the same way social geography has first to proceed analytically and to go back to the elements. But its main task is synthetic: from the observed individual facts it has to construct a picture of the mode and conditions of life of the region under discussion and of its inhabitants.

THE practical value of social geography:

1. A FIRST result of sociogeographical activity is a familiarisation with the conditions under which a population lives. Already the methods of investigation, observation and personal questioning, result in a contact between social geographer and each individual inhabitant of the region investigated. It is the investigator who asks and the inhabitant who gives information. However reserved an individual may be in facing a stranger, he will be glad to give information if, in doing so, he feels himself the teacher. Even in regions with sharp contrasts between townsman and countryman, between brain worker and manual labourer, this method may be employed with full success. If the clergyman is the inquirer, then relations may be established in this way between him and even those members of his parish who might be described as more or less unconnected with Church life.

2. The manifest effort of the minister not only to become acquainted with, but also to understand the economic and social conditions of life in his parish, increases the confidence which the parish places in him. The more he gains an understanding of their mode of life, the more he becomes the qualified leader and adviser of his community and of its individuals, and that not only in theological and ethical matters, but also in questions of economic life.

3. This leadership is a further important result issuing from the minister's activity as social geographer. As adviser in economic questions, recognised as such by all members of his parish, he can gain an influence also in ethical matters on such parishioners as take a lesser or even no part in Church life.

4. Sociogeographical work means a fathoming of the entity of the native land and an understanding of our neighbours. And this background has a high educational value. As a means to arouse and to strengthen both love for one's native soil and social feeling, sociogeographical trends of thought can be made subjects of lectures and discussions in free gatherings of the parishioners. The aim of a course in social geography in schools of divinity would therefore be the training of the students to enable them to do sociogeographical research work, and to act as educators and instructors of the masses on a sociogeographical basis.

5. Finally, we should like to draw attention also to the advantage which such work means for science. Sociogeographical monographs are still very rare, and yet only such monographs can furnish examples and types for treating general problems of sociology, geography, economics, &c. The rareness of such monographs is to be accounted for by the difficulties, not of method, but of collecting material. Such investigations, if they are to be carried out thoroughly, require a stay of at least one year in the region studied, and constant intercourse with people in every walk of life. These conditions are fulfilled by the minister who shares, works, and lives with his community.

It is surely more than mere chance that social geography is cultivated specially in universities of the Catholic Church, that the socio-economic studies of Le Play developed the sociogeographical school of Jean Brunhes, of the Collège de France, who understands human geography, the geography of man, as humane geography, a geography of humanitarian efforts and tendencies. And it is the same school which in the Equipes sociales gives an important place to such a geography, our social geography, in the instruction and education of the masses.

In Great Britain, outside high schools, such investigations are carried on by Leplay House, which writes about them as follows in its programme: "It is now generally realised that a Regional Survey is the best method of gaining an insight into the problems and possibilities of a locality, . . . it aims at giving an accurate and comprehensive account of social life and its economic and geographical basis in a particular town or region."

How would a course of sociogeographical studies have to be arranged in a school of divinity? As it aims not only at awakening an interest

in, or an occasional occupation with, sociogeographical questions, but also at training the students so as to enable them to treat such questions scientifically, the course of studies cannot be restricted to a simple instruction as to how to collect material by observation. On the other hand as such a course does not aim at a complete training of the students as geographers, I am of the opinion that there is no need for treating in the course mathematical and physical geography. All that is required from these branches of geography can well be treated within the compass of social geography and in connection with sociogeographical phenomena. So, for instance, consider the influence of relief on the use made of the soil: forest on steep, fields on flat ground; the influence of the wind on the location of socially different parts of the town: in our climate with prevailing western winds the dwelling and cottage parts lie to the west, the factory parts to the east of the town; the attraction or repulsion (inundation districts) exercised by water on settlements, &c.

FOLLOWING the arguments expressed by Jean Brunhes in his GÉOGRAPHIE HUMAINE, the starting point for the course and, later, for independent work, will have to be the *material facts* which are the visible expression of the activity of man on the Earth's surface. On them observation has to rely; from them the problems have to be deduced in the lecture course; and later on questioning has to start from them.

TRUE, that in a philosophical system one would have to start from the *psychological facts*, proceeding from the more simple to the more complex ones. In such a division we might distinguish with Brunhes the following four groups of facts: (1) those of the satisfaction of the primitive wants of life (food, protection from the inclemency of the weather, and danger during sleep); (2) those of storage economics and of provision for the future, including the origin of the family; (3) those of the division of work and property, including the origin of social groups; (4) those of the relations between different human groups. BUT such a psychological classification might be mistaken for a chronological one of social development, whereas all four groups of facts already exist side by side among the most primitive savages. Just this occurrence side by side and together with each other of different psychological facts makes their analysis and scientific treatment so difficult.

WHEN we now consider the material facts which are the visible expression of human activity on the Earth's surface, they can be easily grouped (following Brunhes) in three big groups: we see the facts of the *unproductive occupation* of parts of the Earth's surface (buildings and roads and their specific connection in settlements), facts of *productive economics* (cultivation and domestic animals), and facts of

exploitation economics (mining and true pirate economics, the "Raubwirtschaft" of German authors).

For each individual group of facts the course would have to discuss in detail (1) the relations between observed facts and natural conditions, (2) the relations between observed facts and social conditions, (3) the method of sociogeographical research with regard to the group of facts under discussion. As an example we wish to outline here the main trend of thought which may guide us in discussing buildings.

The material used for construction, local or imported. The existence side by side of buildings constructed from different material as an expression of different elements in the population. In the Carpathian mountains of Slovakia wood is the main building material of the peasant, but the railway officials have stone and brick buildings constructed by the state, and brick buildings were also constructed with Government help in certain villages damaged by fire. This shows us how one building material may be replaced by another, and one of the reasons for this (risk of fire). Another reason lies in the changing building technique: iron and concrete building. Often there will be a discrepancy between ancient form and new material. There is a great difference between the warm wooden and the cold stone building, and this, in different climates, requires corresponding adjustment.

The organisation of building work. People may erect their buildings themselves, or else there may be a special building trade, or, in the highest specialisation, the architect with skilled and unskilled labour. The seasonal migrations of labour employed in building. The factory-made houses as advertised, especially week-end houses, in our newspapers. Its precursor is the ready-made wood house which, as early as in 1823, was being supplied to the Russian peasant.

The shape of the house, not so much in its ethnographic bearing as in its adjustment to relief features: for instance, one-storied houses on slopes with a direct back door from the slope to the upper storey. The peasant avails himself of this facility to reach granary or hay-loft without stairs or ladder. Its use in sanatoria, with a drive leading up also to the back entrance, making the inmates independent of stairs and lift (the big Radium Hotel of the radium spa of Jachymov in the Bohemian Metalliferous Mountains is built on this principle). Possible use of such adjustment to and utilisation of slopes in factories, &c., to diminish the risk of panics in case of fire. Adjustment to climate: roofs in snowy or stormy climate; the dwelling roof in warm and dry countries, and also in crowded cities with lack of space and abundance of dust near the ground. Adjustment to social institutions: windowless outer walls in Islamic countries. Adjustment to economic requirements: development of granges, stables, potato cellars, ateliers, magazines, store-houses, &c.

The use of place in house and farm, and the resulting social, sanitary, and economic problems. In the farm the house represents the place for sleeping and cooking, and the farm buildings are the real living rooms. Quite different conditions prevail in the house of the home worker, where, in general, sleeping and living room are one. Dwelling conditions in town and country.

THE grouping of buildings of the same and of different kinds. Town plan of building types : commercial buildings (banks, offices), palaces and mansions with gardens, old tenement houses, new blocks of tenement houses with garden courts in common, one-family houses with gardens, factories, workmen-colonies, farms, public buildings.

Building types and inhabitants. Correspondence and discrepancies. Change of the social character in a given part of the town : former palaces or farms incorporated in the growing urban settlement as slums. The breaking up of mansions into tenement houses. Building curiosities : mock castles, Swiss cottages, &c., as suburban villas ; the social state of their builders, artistic education and the formation of taste.

The geographical site of settlements and parts of settlements in the general landscape. Influence of physical and economic conditions. The mutual position of dwelling and working place for different social groups. The cycle of evolution : first there is unity of dwelling and working place by changing the first (nomadism) ; then in connection with permanent residency, small-space economics (peasantry, trade). There follows the separation of dwelling and working place with the daily walk to work and, finally, the doubling of the dwelling place by introducing the week-end cottage. The different forms of migratory movement between dwelling and working place and of the doubling of the dwelling place (alpine pasturing, fishermen's settlements of polar regions, woodcutter settlements, day school and boarding school, the " pied-a-terre "). Influence of unity and division of dwelling and working place on social conditions. The " estafette course " to work (the factories of Jachymov in the Bohemian Metalliferous Mountains employ many people from the surrounding villages, while workmen from Jachymov descend every day to Ostrov, with its porcelain and leather industry in the Ohre valley. Again, people from Ostrov go to work in other places of the Ohre valley, with its lignite mines, kaolin pits and its manifold industries. This is a means to shorten the way for the individual and to make it more equal, the attraction being habit and, in part at least, higher wages where more labour is wanted.

IN this way the discussion of buildings leads to the discussion of *ways*. The influence of easy roads and of obstacles (such are also the time required to cover a distance and the transport facilities available), on economic and social conditions. Temporary and permanent emigration, also the export of human labour as the value easiest to transport.

AMONG the *facts of productive economics* the course will discuss all manifestations of the methodical activity of man in producing by cultivation vegetable and animal raw materials (including foodstuffs). Influence of environment on the possibilities of production (climate, soil, available labour). The rhythm of the year's work in its dependence on agricultural and sylvicultural activity: its influence on the appeal to seasonal workers from other regions and on the association of agricultural productions in a region. Market and fair adjusted to the minima of the rural curve of work. The filling out of these minima of the agricultural curve of work and the use made of the labour surplus: home and factory industry; migration of country people into the towns; emigration. The industries based on agricultural products. The local roots of modern textile industries: flax growing and sheep farming; their "hereditary skilled" labour.

THE *facts of exploitation economics* abstracting from the globe mineral, vegetable or animal raw materials without taking care or without being able to provide for restitution. The protection of agricultural soil and of forests; game and fish laws. The National Park movement. Mining nomadism and its social phenomena: a motley labour material, quick development and quick decline of settlements, industries of distress. The unnatural (conjunctional) rhythm of work and its results. The production of power and the industries of power regions (coal, oil, natural gas, water power). The social order produced by the employment of coal; changes in the density of population. The social possibilities of an industrial decentralisation by the distribution of electricity by overland cables.

THE discussion of the individual material facts has to be followed by the regional study of their association. Here, man and his activity, his life, stands in the centre of the research which has to make clear the alternating play of physical and psychological factors. Such lectures would have to start from special examples and they would also have to show how the observed or ascertained material has to be arranged methodically.

OF special importance are practical exercises. In these the students might treat, under the supervision of the lecturer, subjects as follows: detailed discussion of problems only alluded to in the lectures and that after special examples—in this all students of a course might collaborate; elaboration of special problems of social geography, for instance, of the college town and its environs; reports made by senior students of their observations at home during vacation; discussion of sociogeographical books and comparison of conditions at home and abroad.

JULIE MOSCHELES.

THE SOCIOLOGY OF RURAL AREAS: A CZECHOSLOVAK QUESTIONNAIRE.

THE VESTNÍK of the Czechoslovak Agricultural Academy, Vol. VI, Part 3, contains an article on the Sociology of Rural Areas, with a questionnaire drawn up by the Central Commission for the Sociology of Rural Districts in Czechoslovakia, on the basis of a proposal made by Dr. Pohl.

IT is proposed to make use of the questionnaire in a very thorough study of the present social cultural and economic condition of rural areas in Czechoslovakia. To this end it is hoped to secure the help of qualified specialists. The filling up of the questionnaire will be entrusted to local commissions consisting of the local mayor, school teacher, postmaster, registrar, and parish clerk. Probably the information provided by the questionnaire will in many cases merely serve to indicate further and more intensive lines of enquiry.

THE information about a village obtained in this manner will be handed over to appropriate specialists and the possibility of publishing a series of monographs is envisaged. Later the information will be generalised by provinces and over the whole Republic. Special attention and treatment will be given to those areas whose character and needs demand this. Local ethnography and history naturally come within the scheme, as well as geographic and economic data.

IT is intended that the information thus accumulated shall be employed to assist in raising the standard of cultural and economic life in rural areas.

THE persons reporting upon the individual branches (for example, sociological, economic, historico-anthropo-geographical, ethnographical, and so on) would select their fellow-workers with the knowledge and assistance of the Central Commission, which would guarantee that the material collected would not remain unused in the pigeon-holes of some organisation for the study of rural districts. Central Commissions exist in Slovakia for the study of Slovakia and Carpathian Ruthenia, and it has just been announced that at Brno a new Commission has been set up for studying the High Tatra and the adjacent Carpathian areas.

QUESTIONNAIRE FOR COMMUNES.

(Drawn up by the Central Commission for the Sociology of Rural Districts on the basis of a proposal made by Dr. Pohl.)

I.

MATTERS RELATING TO POPULATION, HEALTH AND SOCIAL CONDITIONS IN THE COMMUNE.

1. DOES or did your commune suffer as the result of emigration? Yes or No. To what areas do people mainly emigrate from your district? Do they merely move to other towns in your region or province or do they also go abroad? About how many farmers, how many cottage-dwellers, how many workmen, how many persons of other occupations emigrated from your commune during the years in question?

   WHAT was the main reason for their emigration? (On account of failure in agriculture or in some other venture, on account of lack of work, desire to live in the town, &c.) Do the emigrants send their savings home? Yes or No. Do the emigrants return home again and, if so, are they well off or not?

2. How many divorces, legal separations or other separations have taken place in your commune since the change of regime in October, 1918? Of the divorces how many of the persons involved were Roman Catholics, Czechoslovak Church, Evangelical Czech Brethren, other Evangelicals, Jewish, without denomination, according to nationality Czech or Slovak, German, others? Of the legal separations how many of the persons involved were Roman Catholics, Czechoslovak Church, Evangelical Czech Brethren, other Evangelicals, Jewish, without denomination, according to nationality Czech or Slovak, German, others?

3. TO which market do the people go from your commune? Mostly, entirely, to . . .

   WHERE do the people from your commune go to do their shopping? Mostly, entirely, to . . .

   TO which railway station do the people from your commune go? Mostly, entirely, to . . .

   TO what church do the people from your commune go? Mostly, entirely, to . . .

   WHERE do the people from your commune go for their festivals, entertainments, theatres, &c.? Mostly, entirely, to . . .

4. DO workmen from your commune walk or ride daily or for a whole week to other communes for their employment? Where, how many on an average, and for what employment?

   OR, on the other hand, do workmen from elsewhere come to your commune for their employment? From where, how many on an average and for what employment?

5. Does your commune suffer from lack of workers, in what branch, for how long, since what year?

6. Has an industrial town or industrial area not far away changed conditions in your commune? Yes or No. If so, in what connection mainly? (Has it produced a lack of workers, a change in the manner of life, &c.?)

7. Is your commune troubled considerably by mendicants, tramps, gypsies? Have the conditions improved or the reverse in this respect since the change of regime? Why? Has there been any control of mendicants or tramps in recent times (since the change of regime) in your commune? How, mainly? (Establishment of poor-houses, &c.)

8. What attention is paid in your commune to hygienic conditions? (Official inspection, water conduits, canalisation, proper arrangement of houses, cess-pools, manure heaps, &c.).

9. Are adequate provisions made in your commune for drinking water? Have you conduits in your commune? How many public wells have you?

10. What arrangements are made in your commune for security? (Does the communal police-man act as a night-watchman, or do the citizens themselves perform this service in turns?)

11. How many fires have there been in your commune since 1918? How many buildings have been totally destroyed? How many new buildings were added since 1918? Mention any re-building operations of importance which have been started or completed.

12. What relations are there between summer excursionists and the local population, and what influence has this contact had upon raising the general level of the commune?

II.

Economic Conditions in the Commune.

13. What tends most to produce a rich or poor harvest? (Special quality of the soil, special method of tilling the soil, exceptionally frequent use of artificial manures; frequent hail-storms, or adverse weather conditions generally, &c.)

14. Have you any small allotments on which the soil can be tilled only by hand? If so, what proportion of the total arable land of the commune do they form? (If you cannot state this exactly, give an estimate as best you can.)

15. Which type of landed property is more frequent in your commune, complete estates or land divided up into small holdings? Has any attempt been made to transform scattered small holdings into single estates, and if so, in which year?

16. ARE more products sold in the market or in the co-operative societies or to retailers?

17. WHAT products have ceased to be cultivated in your commune and what have they been replaced by within recent years, and why? (Wheat, other foodstuffs, fodder, varieties of cattle, and so on.)

18. HOW many trading concerns have been sub-let in your commune? Why were they sub-let?

19. WHAT is the custom regarding the division of land between the members of a family?

20. DO the agricultural workers insure themselves against old age and, if so, with what company?

21. DO agricultural concerns change owners frequently or are they regularly handed down from parents to children? How long are the individual farms in the hands of the same family?

22. DO such concerns change hands only partially or are they transferred entirely to the new owner?

23. WHAT accommodation is there for the farm-hands?

24. ARE the communal high-roads used for transport? In what condition are the communal highways?

III.

CULTURAL CONDITIONS.

25. WHAT educational societies are there in your commune? (Sokols, or other gymnastic societies, libraries, reading clubs, agricultural unions, theatrical and musical associations, educational societies, &c.)

Is there a mounted sokol association in your commune, and if so, how many members are there?

26. HAS any book or chronicle been written about your commune or about your district? What is its name, who wrote it and when? Or is any periodical dealing with local conditions published in your district? If so, what is its name and how large is its circulation? Who is in charge of the Communal Register?

27. HOW many men in your commune do not drink or smoke? How many blind persons are there in your commune (at home or in institutes)?

How many lame persons are there in your commune (at home or in institutes)?

How many mentally deficient persons are there in your commune (at home or in institutes)?

How many deaf mutes are there in your commune (at home or in institutes)?

ARE these defects hereditary or are they the results of serious illnesses?

28. How many girls and boys from your commune are studying?
How many attend a higher elementary school?
How many attend a winter agricultural school?
How many attend a domestic economy school?
How many attend a commercial or technical school?
How many attend a secondary school?
How many attend an agricultural secondary school?
How many are studying at the University, and at which one?

29. Is national costume worn in your commune? If not, when did it cease to be worn? Are there any other manifestations of an earlier period? (As regards buildings, household equipment, food, customs, &c.)

30. Is your commune* oblong in shape (along a high road or stream) or circular, or mixed?

31. WHAT drawbacks are there in your commune and what are its special needs? (In respect of economics, culture, transport, &c.—building of a new high road, post-office, new school or extension, railway, motor-bus, water supply, district doctor, markets, new library, better organised economic system, field and meadow irrigation, arrangement of squares and parks, and so on).

*The village—not the whole area of the commune—seems to be meant. [ED.]

SOME SOCIOLOGICAL ASPECTS OF MODERN ARCHITECTURE:* by Stanley C. Ramsey.

WHEN I had the pleasure of taking the Chair at the architectural lecture given at this Conference last year, a certain amount of the after discussion centred round a rather unfortunate remark of mine to the effect that in viewing modern architecture—" Modern," *i.e.*, in the sense of being modernistic—it is not reasonable to expect the same sort of beauty that you get in the Cotswold cottage. If my memory serves me right, half the audience then got on their feet and indignantly demanded "Why not?" I thought it would be interesting to take as the motive of my paper this afternoon the reason "Why not?"

IF you wish to discover the answer to the modern architectural riddle, you will find it as one does to most modern riddles, in a proper understanding of the 19th century, and what the 19th century stood for.

AFTER some 30 years we are beginning to get a sufficiently detached point of view to enable us to discern the main movements of that amazing period, and this is where I think the simplifying process of what—if I may call it—the " Le Play " sociology helps. To translate its sociological terms in their simplest and most elemental forms and apply them to the architecture of the historic periods in this country, I should say that you get the hunter represented in Norman architecture, the Shepherd in Gothic architecture and the Peasant in the Renaissance, while it remained for the 19th century to produce the Miner's architecture, but always qualified by the fact that as an island people, the fisherman, as sailor, is of enormous importance. I developed this historic thesis in a paper I read some years ago before the Liverpool Architectural Society, and I believe a copy is available at Le Play House if anyone is sufficiently interested. I am only going to briefly refer to it here as an introduction to what I am going to say this afternoon.

PROFESSOR GEDDES has presented us with two very useful terms to differentiate 19th century industrialism from that of the 20th—the one he calls " Paleo-technique," and the other, " Neo-technique "—the first being the crude industrialism, as I understand it, of coal, and the other, the refined or applied industrialism of electricity.

WE have to remember that 19th century industrialism was expressed in this country by the cheapest and most unpleasant form of urbanism —developed in centres remote from the normal English traditions of culture, *i.e.*, the peasant culture represented on the social side by the

*A paper read before the Annual Conference of the Institute of Sociology in November, 1930.

County Family, and on the intellectual, by the University of Oxford. This industrial urbanism had no tradition of city life to guide it, like the city life of the continent, and 19th century towns were, for the most part, nothing but crude miners' camps.

To use the Le Play terminology—the ameliorative shepherd's influences of the Churches was manifested by the Oxford movement with its tremendous impetus towards the Gothic revival, resulting in Gothic Church Architecture, and a Non-Conformist or Free Church movement, expressive of the untraditional industrial urbanism represented by untraditional and crude buildings, which at their best were a pale echo of the Gothic or of the older Non-Conformist architecture of the Quakers and Non-Jurors continued in an attenuated classic form.

To-day the modern world is starving for beauty in practically all industrialised countries, and I think I might suggest that a good architect or artist is of far more importance at the moment, than even a good priest!

But these two religious movements have had, indirectly, a tremendous reaction on the arts. The Gothic revival and all the other revivals that followed, were part of the great Romantic movement, exemplified on the literary side in France, say by Alexander Dumas, and in this country by Sir Walter Scott. All those interested in modern architecture know the triumphs and the failures that it produced. If you want to see the triumph, you have only to visit that wonderful example of the post-Gothic revival, Liverpool Cathedral—and if you wish to see an example of a tremendous failure, there is that scarcely less beautiful but ill-starred building, Streets' Law Courts.

To-day, "Gothic" is practically only used for Church work, and even then only to a modified or limited extent. The success of the Gothic was in its failure. The failure of the main stream concentrated the attention of the artists on the lesser contributory streams, such as the Arts and Crafts movement, resulting in a Peasant craftsmen's tradition (quite different from the peasants' tradition of the Renaissance) exemplified by the works of William Morris and his followers, down to Voysey, Baillie Scott and others, still happily with us: these, in their turn have influenced continental practice to such an extent that the modernism of Corbusier and modern Swedish architecture, owes no little to the influence of the works of these English artists, remote as may seem the connection.

The Georgian phase, which is the last phase of the period of the Revivals, particularly in its later and more severe expression, is in essence just as romantic as the others, but it has a more intellectual tendency—a reflex, as it were, of the intellectual activity and curiosity of the Renaissance proper, and in the same way that the work of

Voysey and the English craftsmen prepared us for the clean start of modernism, so the "Georgian" prepares us for the intellectual apprehension of it. It is interesting to trace the School of the Renaissance proper from Queen Anne down to Regency and Soane (the innovator), as a prelude to the Gothic revival with the much more compressed but corresponding period of the Queen Anne revival of Norman Shaw and of the late "Georgian" and "Regency" of modern times, preparatory to the innovation of the Modernists. So that we have, I think, a meeting of two streams—the Gothic Revival as exemplified in peasant handicrafts, and after it, the intellectual activities of the Renaissance mingling together to produce the river of modernism.

PRACTICAL examples of the various phases I have referred to can be best exemplified by reference to certain building developments. For instance, we may take as the best example I know of, the modern application of the development of the Tudor cottage, *i.e.*, domestic Gothic plus the peasant art, seen in many of the houses in the Hampstead Garden Suburb and at Letchworth. Here you have a deliberate attempt to revive the art of the early English cottage builders governed and determined by modern needs—or if you prefer it—modern by-laws—and of course the result is something widely different, though extremely interesting and at its best very beautiful—a necessary feature in the modern historic panorama of architectural development.

To change the scene, we go next to Welwyn—a post-War development—and see the spirit of Georgian in which the same attempt has been made to produce Georgian and Queen Anne houses suited for modern purposes: and here again, the result when compared with some old Georgian town is widely different, but also interesting and beautiful. One can also refer to the many housing developments carried out since the War for local authorities and private companies, which are also very good examples of the Georgian inspiration.

I HAVE said that the late or post-Gothic craftsmen influenced continental artists, and we now in our turn have been influenced by the reaction. Sweden, Holland and Switzerland—all countries which, fortunately for themselves, were outside the great tragedy of the War, and instead of having to spend their wealth in implementing death and destruction were able to put it to constructive use in building, have each in their turn produced very interesting phases of modernistic work. Sweden has up to the present probably had the greatest influence on our English modernists, because it has been more traditional than the other Schools and therefore more familiar: at the same time it is sufficiently revolutionary in principle. To take a literary parallel, the first reactions in this country were as startling as the literary reactions to Ibsen, whose work came like a cool wind

from the North into the super-heated artificiality of the late 19th century drama. Behind all Swedish architecture, both ancient and modern, stands the fact that so much of Swedish building is in timber.

HOLLAND, of course, builds in brick, whilst Switzerland in stone. Switzerland, perhaps because it is mountainous and a smaller country, has not produced anything like the volume of work that the other countries have, yet its building is interesting because, probably on account of its nearness to Italy, it is much more touched with the spirit of the Renaissance than either Holland or Sweden.

POST-WAR Modernism is summed up in Germany by the work of Eric Mendelsohn, and in France by the work of the Swiss-Frenchman, le Corbusier, the architectural Calvin of the modern world. Wherever people discuss modernistic architecture they will, sooner or later, begin discussing le Corbusier. He is of importance on account of his books rather than because of his executed work.

COMPARING the post-war modernistic work of France and Germany with that of the three countries I have already mentioned, one notes that there is a much greater breadth, an expression of more universal principles, and if perhaps not quite so interesting, it is less parochial. On the material side Modernistic Architecture, such as the French, owes its inception to the use of new materials like reinforced concrete, plate glass, stainless steel, and others too numerous to mention. It is to my mind essentially urban in its spirit and always appeals to me as being what I call " Crowd " architecture.

ONE of the most interesting features of French modernism is the extraordinarily beautiful handicrafts which it has called into being. Some of the modern French ironwork is just as beautiful and delightful as that of the smiths of old.

URBANISM AND REGIONALISM.

THIS modernistic work of Corbusier and his followers in this country and abroad is to me, as I have said, expressive of urban " Crowd " architecture. It is the neo-technic of the electrical age. But it must not be forgotten that the country folk are much more traditional than townsfolk, that they have stores of local material ready and available for use. In many cases, as for example in the stone districts, it is at the moment unfortunately frequently cheaper to import brick, rather than to use the local stone—but conditions change so quickly that it is quite conceivable that more modern methods of quarrying and working stone may again make the stone an economic proposition. My own feeling is, that this Regional architecture should be encouraged, and it may be that we shall have two distinct methods of building, the Urban and the Regional, acting and reacting on each other to the interest and advantage of both. This Regional architecture,

relying as far as possible on the materials of the region should also be expressive of the region—it should not be the architecture of faked reproduction.

The Modern Problem.

We now come to the "Modern Problem." All those who are interested in the arts of building are horrified at the extent and quality of the Speculative Builders' work. I suppose it is the work of the Speculative Builder that has really called into being the C.P.R.E., *i.e.*, The Council for the Preservation of Rural England.

During the 19th century this very low grade of building was confined to the towns, and one only visited these towns under compulsion by journeys from railway station to railway station. The coming of the motor car has changed all this, so that we now get these paleo-technic hutments littered all over the countryside in much the same manner that the uninstructed picnicker litters up the pleasant places and retreats; only instead of paper bags, he leaves behind him a mess of little pink and white houses.

A good deal of the reaction to this ruining of the countryside is what I should describe as the reaction of the cultured selfish. As long as these horrible buildings were confined to the horrible towns, they did not cause any very great distress to the more fortunately situated who were able to dwell in the pleasanter places. I think it was the Bishop of Manchester who in a recent Address which deserved far more publicity than it appears to have attained, pointed out that if you had ugly towns indicative of ugly methods of living, you must not be surprised that when the people who led these ugly lives desired to escape into better places, they trailed after them the architectural habiliments of these towns. We therefore have the interesting position that the reactionaries appear as the apostles of salvation. The interesting thing is, that they are absolutely right. The real remedy is, of course, to provide beautiful towns. If, for instance, the examples of Hampstead Garden Suburb, Letchworth and Welwyn Garden Cities were to spread over into the countryside, we should then see the result in a series of beautiful villages and interesting isolated houses, because these group developments have architectural inspiration. A successful movement to prevent the spoiling of rural England must, if it be carried to a logical issue, result in the architectural salvation of the towns, industrial and otherwise.

Education and Persuasion.

A question of interest to all of us, is how best to help towards this happy issue, and first and foremost I would put education and persuasion. Until you have a sufficiently enlightened public opinion, you

will never be able to enforce the architectural dictates of a minority however enlightened. In this direction, *i.e.*, the direction of education, the R.I.B.A. in conjunction with the C.P.R.E. are now conducting a series of extremely interesting experiments. In many local districts they have persuaded the local authority to appoint a consultative panel to watch over the architectural and artistic amenities of the towns and regions. Something of this sort has long been in force in France where the various towns have little groups, such as " Les Amis des Caudebec," " Les Amis des Versailles," &c., &c., who perform similar duties. Compulsion, I feel, could only be applied when there is a sufficiently large volume of intelligent public opinion to be able to force its will on a recalcitrant minority.

It appears to me to be of very little use and unfair in incident, to single out the Speculative Builder for especial blame. A little while ago I read a most amusing and brilliant article by Mr. Clough-Williams Ellis (who has done such good work for the C.P.R.E.) attacking the Speculative Builders as " Brigand Builders "—I am not sure that he did not add—" working at the behest of piratical peers."

On the practical side, as a general rule, the Speculative Builder gives very good value for money, and it is astonishing what amount of thought and brains have been put into the practical side of the best Speculative Builders' houses: but he builds to meet a demand, and I know of very painful cases—one in particular occurs to my mind—in which there are two estates almost cheek by jowl, one a very sound architectural development, properly town planned with quite nice little houses designed by an architect or architects—and, nearby, a most flamboyant example of uncontrolled builders' taste. The houses offer much the same accommodation at practically the same price. They are about equally well off in matters of equipment and practical planning, but the local agent told me that he could sell four builders' houses to one architects'! This is public taste, and this is the public taste that the Speculative Builder, not being a philanthropist, caters for.

We are all responsible for this unfortunate state of affairs. One of the things that continually amazes me is the stupendous architectural ignorance of the " Intelligentsia " (*i.e.*, the educated classes). Educated men and women will hesitate before admitting that they know nothing of literature or music or even of the Fine Arts, but they will not hesitate, neither will they feel any shame, in admitting that they know nothing about architecture. Educated people who would hesitate to ask a musician to explain to them the difference between the works of Mozart and Wagner, do not hesitate to ask one to explain the difference between " Classic " and " Gothic "! Surely one of the main objects of education is to satisfy legitimate curiosity, and if these questioners had sufficient interest in the subject of architecture, they would know

that all they had to do would be to expend a few shillings in a few books to get all the information that they required! The only conclusion that can be drawn is that they are not really interested, and therefore, possibly, the spoiling of the English countryside is, indirectly, one of the best things that could have happened, inasmuch as these outrages have startled and awakened the architectural conscience.

CONTRASTING with this attitude of indifference there is the influence of Le Play House, the Architecture Club and the Public Press, all making for better architecture. It is to-day scarcely possible to pick up any paper, daily or weekly, without finding some illustration, article or reference to either architecture or one of the associate arts, such as decoration, craftsmanship, &c. Architecture has at last definite news value.

I SHOULD like to see architectural appreciation classes, in the same way that one has musical appreciation classes, in all our schools. Some knowledge of architecture—I mean on the appreciative side—not on the practical or professional—should be a part of all our University Courses. In the 18th century some understanding of the Fine Arts and Architecture was considered an essential part of every gentleman's education, and there is no doubt that this knowledge of architecture in the Patrons of the 18th century did contribute to the excellence of the architecture of that period.

POLITICS AND BUILDING.

IT is interesting to note how the various political parties have contributed to the architectural problems of the day as particularly exemplified in post-war housing.

AFTER the War, when Mr. Lloyd George was in power, the Liberals (whom we will call the imaginative shepherds) attempted to solve the problem by the employment of architects, and were successful to the extent that they produced a series of model settlements, which will be a starting point for similar schemes of building for a very great while to come. These little architectural communities stand out as oases in the desert of speculative building—but, as they were provided ostensibly for the Working Classes, they have had this curious effect on the Class immediately above them, which is, that what is called a "Council" house, however, beautifully designed, has a distinctly detrimental effect on a Middle-Class neighbourhood, so that this Class differentiation operates to the disadvantage of good architecture, and we are in the curious position to-day of finding that the only people who can be provided with good architecture, are the very poor and the very rich, except for the fortunate few who can live in such places as Hampstead and Welwyn.

WHEN the Liberal effort failed, the Conservative Government (*i.e.*, the practical Peasants) solved the housing scheme by the encouragement of the Speculative Builder: however fine the Liberal effort was, it did fail on its practical side because it could neither secure the output nor was it sufficiently stable financially to ensure success. It was when the Conservatives released the energy and enterprise of the Speculative Builder that the housing problem became within a measurable distance of being solved. From being a much decried pre-war figure, our friend "Jerry" became the hero of the hour—but the swing of the pendulum is now in the other direction and this has caused the fearful outcry, largely from the Conservatives who called him into being, against the spoiling of the countryside.

WHEN we come to the Labour or Socialistic Government (the miners !) they are, for the most part, interested in the expression of urban conditions. Their attitude to the architects is to ignore them, and to the Speculative Builder, to leave well (or is it ill ?) alone, but what they really believe in, is building by bureaucracy, some of which building is very good. To instance, the work of the London County Council and the Office of Works is on the whole, I should say, quite equal to if not better than the work of the average practising architect. On the other hand, the architectural efforts of the local bureaucracy of urban and district councils working through their Borough Surveyors, is frequently exceedingly distressing. I could give you, but I will not, the name of a Council who have produced a housing scheme which for joyousness and expression of communal life can only be compared to the more severe type of penal settlement.

THE ordinary Speculative Builders' work has a certain froth and frivol, which at any rate is human. These dehumanised and dehumanising efforts to which I refer, are simply appalling and they unfortunately carry with them the cachet of public authority.

WE see, therefore, the strength and failure as applied to architecture, of all the political parties. Personally, I am in favour of a greatly extended State service of architects. If the State is going to give us architecture, let it give us good architecture, because in this way it will encourage the taste and set the example.

AT the present time the official architect is frequently chosen because he is good at Committee work, rather than for his qualifications as an Architect. It might not be a bad thing to try the French system of offering some of these official posts to the more successful of our architectural students.

THE speculative builder is I am certain capable of conversion, but if you wish to retain his services so that they are a help and not a detriment to the community, then you must first of all convert and educate the

public for which he caters. Properly allied to some architectural inspiration—either by the State or private professional—the energy and the enterprise of the speculative builder could be made of great benefit to the community.

I HAVE tried within the confines of this brief paper to set out as fairly as I can, some of the most pressing of modern architectural problems.

YOU have, on the one hand, a great number of energetic but misdirected—or rather non-directed—builders. On the other, there are a great number of architects, both young or old, either wholly or partially unemployed. You have an ugly modern world starving for beauty, and finally, there are three political parties, unwilling or unable to help it. Who then will help? Can the Sociological Institute produce some wonderful Aladdin's lamp which will give us new towns for old, and beauty for ugliness?

S. C. RAMSEY.

FORM IN MODERN ARCHITECTURE: by Lewis Mumford.*

DURING the last two centuries architecture, like society, has been in a state of transition. The field has swarmed with new ideas, and each fresh effort, so far from providing a departure for future building, has rather increased the chaos and dissonance and the lack of a common understanding. Such order as architecture has achieved has been temporary and local: for a moment in the eighteenth century, for example, the aristocracy learns the secret of building great squares of unified design, grouped about a park, as in Edinburgh or London: but these patches of coherent architecture were temporary and local, triumphs that were swiftly swallowed up by a quite different order of building in other parts of the same society. Looking at one building at a time, one may discover competent design and even a certain logic in its development: but when one considers all the buildings of the transition together, the Palladian country houses, the Greek savings banks, the Romanesque court houses, the Gothic churches, and the suburban villas that are so many souvenirs of foreign travel, so many commentaries on history, or so many symptoms of repressed desires —when one considers architecture as a whole, one is conscious of a general dissolution. A divided society, a divided mind—and in consequence a disrupted sense of form.

So muddled have both architects and critics of architecture been as to the nature of the modern transition, that even those who sought to pioneer in new territories have been almost as greatly handicapped as those who clung to the safety of the past. The sanguine and happy spirits who conceived the iron-fronted office buildings of the sixties, the scroll-saw villas of the seventies, and the iron-framed smoke halls (railway stations) of the eighties were eager to produce new forms and confident that they were beginning to utilize to the full the new inventions and materials that science had introduced: but a close examination of their product shows that they were in fact almost as far from the sources of form as their more timid rivals and successors, who sought to bring back the achievements of Palladio and Vignola, as these in turn had looked for inspiration in the monumental debris of Rome.

WHY has this confusion persisted? Why is the gap between Mr. Geoffrey Scott and a modern engineer, between Doctor Ralph Adams Cram and Le Corbusier, as great as that which existed between Ruskin and the designer of the Crystal Palace: why, indeed, are they still substantially going over the same ground and wrangling over the same differences? The answer is, I think, that we have sought in æsthetics some guidance to the problems of form without first achieving a critical understanding of society. Architecture is bound up with the

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social transition; and it is the singular demerit of a large part of architectural theory and practice that it has no living relation with the society that produces it, or, what is just as serious a defect, has accepted some particular accident, like metropolitan congestion, as if it were a permanent condition which should be fostered and preserved for the sake of its occasionally happy æsthetic effects.

Now architecture is predominantly a social art, indeed, during all the great periods architecture has, as a matter of course, embraced city planning; and to fancy that the design of buildings can be isolated as a pure æsthetic problem and solved solely by the ingenuity and taste of a single personality is to betray a fundamental ignorance both of æsthetics and buildings. A good party of current æsthetic theory is disguised sociology; and it would serve criticism a little better if the sociology were avowed and criticised on its own merits, instead of being disguised by foreign canons and principles. Doctor Cram has been very open in his convictions that we should return to a mediæval polity, in order to have a basis for the kind of architecture he regards as the highest expression of the spirit: but some of our critics have stood for the baroque or the classic without being equally open about their intentions, and, by the same token, the machine, the engineer, mass production, have all been attacked and defended by people who have had only a very casual and sketchy notion of the sort of society implied by these conceptions of architecture.

At the very moment that the "battle of the styles" took place between the Romans and the Greeks, when vivacious contests between the mediævalists and the formalists made their way even into dinner-table discussions, at this moment—so admirably summed up in the convictions and vacillations of Barry and Pugin—certain fundamental changes were taking place in society which are making this whole series of quarrels irrelevant and meaningless. Before we can deal intelligently with modern problems of æsthetics, we must make a preliminary survey of the sources of form in modern society: we must look to our foundations. In building, the architect, the client, the trade, the craft, the system of production, to say nothing of the site, the civic relationship, are all anterior to the design. Form in building is in essence the form of a particular society.

With our perspective on early industrial society we can now see that the battle of the styles was doomed to be a losing one, no matter which side seemed victorious, for, with the introduction of new functions in economic and social life, with the displacement of old habits and modes of thought all along the line, form itself was disintegrating in modern society. By the middle of the nineteenth century form was gone. What was left was only a shadow, sometimes a great shadow, like the Westminster Cathedral or Trinity Church, projected from the past,

sometimes an anticipatory shadow like the Crystal Palace or the Eiffel Tower, cast forward into the future: but never, during all this turmoil and change, a solid, integral form, existing in its own right, a perfect resolution of all the many elements that make a building, and a city of buildings. No matter how powerful the individual architect's imagination might be, his forms were denied by the ungainly realities of jerrybuilt villas, squalid factories, railroad yards that gashed and gaped through the city, as in Edinburgh and Boston, and, in general, by lack of wholeness, purpose, order, integration, visible alike in the business centre, the industrial slum, and the elegant suburb that sought to escape them.

THE architect was not to blame for this anarchy, and he was almost powerless by any individual act to avert it or surmount it. But a good deal of his preoccupation with the past, with dead forms, with embalmed beauty, may be characterized as an effort to compensate for his inability to understand and gain control over the forces of modern society. An individual may be helpless: but a profession has a corporate power, and just as the medical profession, impotent as individuals to remove the causes of smallpox, tuberculosis, typhoid fever, organised the resources of public health, so it has been open to the architects, and is still open to them, to deal corporately with the forces that condition, and so often undermine, their efforts. The architect's concern for "style," for archæological precedent, his willingness to be satisfied with his little patch of comeliness and beauty, has been an acknowledgment of his collective feebleness. In part, this aloofness does him honour. In times of profound social maladjustment the man who enters into relation with the dominant institutions, who conforms and adapts himself, becomes a cripple, while the one who remains aloof may preserve until a more favourable occasion the standards of a humane order. It was better to hold on to the dead forms of the past than to accept, without humane change and modification, the opportunities which the present offered: indeed, when one remembers that the ugly, insanitary stereotype of the dumb-bell tenement in New York was the result of an architect's design for a model tenement, one is glad that he did not more cheerfully join the procession, and exercise a wider influence of the same order. But in practice the architect's unwillingness to meet the present, that is, to understand, criticise, and modify modern society, has resulted in turning a large part of our buildings into an architecture of escape, the equivalent in steel and stone of the neurotic fancies of the invalid. The interior of a movie palace or the antique furnishing of a modern skyscraper apartment is not normal to a living architecture: they are childish fancies which have scarcely the authenticity of true make-believe.

WHILE the disintegration of form has been very largely a social matter, a part of it is due to the fact that during the Renaissance the architect

began to lose touch with the vital tissue of contemporary society, by looking to the past for an inspiration he did not find in either the daily life, the religion, or the technical problems of building. This attitude resulted in a profound dissociation between the imagination and the practical task of building; it placed a premium upon scholastic knowledge, substituting archæology for positive taste and pedantry for craftsmanship. The projet, the paper design, became the central concern of architecture: so much so, that the architect blandly passed over utilitarian details when they interfered with the preordained order of his plan or the symmetry of his elevation, just as he usually averted his eye from the actual effect of his fine building in the environment to which it was finally anchored. Unity, coherence, logic, relatedness, existed only on paper. When they were marred or destroyed by the actualities of the modern industrial town, the result was treated as an unfortunate accident—an accident despite the fact that it was repeated with the inexorability of a natural law.

Both current æsthetic theory and the habits of daily life have been kind to the architecture of the drawing-board; far too kind. We have formed a defensive practice of isolating buildings from their neighbourhood and of accepting façades without penetrating, as it were, into the third dimension of a building, as though it were a canvas that could be hung by itself on a blank wall. The result is a perversion of judgment. This isolation, this separateness, this æsthetic self-sufficiency, are no more the properties of architecture that they are the properties of a living organism: form in building exists, not in any static photographic view of the structure, but in the continuous dynamic fulfilment of all its relationships, of which the effect on the eye, though vastly important, is only one. Mr. Geoffrey Scott's essay on the Architecture of humanism, which demolishes so many fallacies about architecture, falls short of demolishing this one: indeed, Mr. Scott himself seems to believe that success in architecture depends chiefly upon the architect's skill in composition, in handling mass and line and interval, without respect to the means he may use or all the other relationships of function. On examination, one sees that Mr. Scott is in fact talking about pictures and not about buildings in their entirety, although it is plain that the composition of pictures is a separate art, whose optical relations—uniform light and a relatively fixed position for the observer—are entirely different from those presented by a building.

As pictures, as fixed abstractions, it may be quite true that one mode of building has no priority over another, and that a Baroque palace skilfully created in the present century is as justifiable from the æsthetic standpoint as a Baroque palace built two hundred years before. But as a complete structure the building is infinitely more than a picture, for it is not merely in its visual aspects, but in the meanings it conveys, the relationships it implies, the functions it subserves

that it comes to life: the building is a synthesis of social elements as well as a composition in space. As pictures, a club by McKim and White, a Gothic church by Goodhue, and an office building by Louis Sullivan might all be equally good; or indeed, solely from this point of view, the first might be superior to the last. Sullivan's buildings, however, had their roots in a solid conception of modern life, in an understanding of its needs, its functions, its further potentialities; they were rooted in a certain soil, a certain landscape, and gained in exuberance of energy by the electric confidence that is Chicago: hence, as living structures, his buildings have a quality which only the earliest works of McKim and White, or the latest products of Goodhue, could approach. Apart from skill in design, Sullivan's buildings had form; they were capable of extension and universalization in society, because they were intelligent products of that society; and we need not wonder that Sullivan found a solution of the office building, whereas McKim and White turned away from that problem—as "not architecture"—and, at all events under their own signature, would have nothing to do with it.

FORM, let me repeat, is a social product. During the past two centuries we have canvassed and tried out many substitutes for form; but the results have been successful only on paper; and it is time we gave up that particular quest and came back to society, to seek it, not in archæology, not in history, not in "nationalism," not in "business," not in "the machine," but in the community as a whole and in the organic relationships that arise out of its life. Form cannot be separated from human beings and their work and their environment, from technology, economics, city planning, soil, climate, social conventions and values, philosophy, æsthetics, and morals. The business of the architect is building, of course, and not sociology; but he can approach his goal to-day only to the extent that he understands the nature of modern society, draws from it the elements that will assist his expression, and modifies, collectively if necessary, those aspects which tend to disrupt form or make it impossible. His individual solution, his design, will not be a final product in itself: it will be an approach to synthesis, significant only to the extent that it comprehends and encloses the ordered life of the community. After three hundred years of dispersal and disruption, the beginnings of a fresh integration seem, perhaps, to be at hand. The mission of modern architecture is to hasten this crystallization and to give it formal expression. We are through with the picture and the picturebook, with abstract æstheticism, archæology, snobbism, pedantry, glib imitation. Architecture is building; and building is an organic expression of social life. The architect who understands his society, though inferior in imagination and design, may have more to contribute to modern architecture than the brilliant artist who misinterprets his functions and relationships.

COMMUNICATIONS.

The Seventh Congress of German Sociologists.

On Monday, 27th September, the seventh Congress of the German Sociologists was opened in the presence of two Ministers who addressed the assembly officially. Two professional sociologists are members of the Prussian Government: Dr. Grimme, Minister of Fine Arts and Science, a disciple of the late Max Scheler and a religious socialist, and Professor Waentig, the Home Secretary (Minister des Inneren) of Prussia, who is the editor of a German translation and glossary of Ricardo's Principles. Having honoured the deceased members of last year in a short memorial speech, the *Doyen* of German Sociology, Ferdinand Tönnies, introduced the first speaker, Professor Brinkmann of the University of Heidelberg. The topic of the day was: "Press and public opinion."

In a sociological critique of the great power "The Press," Professor Brinkmann examined the way in which big capital and the highly developed technique are influencing the particular purpose of the Press: the "News Service." The importance of certain methods and technique is obvious in the workings of the managing "apparatus" with its specific laws; they have a certain neutrality, which is dictated by the actual ruler of the Press: *its reader*. For the big papers find it necessary to obtain a big market among the masses, and in order to reach more and more classes of readers, who are not at all politically interested, all "debatable" subjects are gradually excluded from publication. The papers change their faces, their columns being filled with light literature and feuilletons. Diminution of the interest in culture and knowledge proves to be the one great danger for the big papers which are called "Welt-Presse." Another danger, as the speaker points out, lies in the growth of the official press departments (Presse-Stellen) of the authorities, big stock companies, trusts, industrial boards, etc. If this development continues, the Press, instead of *informing* its readers, will be *informed*, and in consequence the necessary critique on public affairs will cease. However, Professor Brinkmann finished his lecture with an optimistic prospect. He expressed the hope that a new rank of intellectual aristocrats will be able to use the technical apparatus of the World-Press, in order to lead the nations toward new mental and cultural work.

The assistant reporter of the day, Mr. von Eckardt, Professor of Heidelberg University, supplemented the lecture of Professor Brinkmann. According to his ideas the typical function of the Press is not merely the transmission of *news* but of *opinions*. And what is most essential, is not the *exchange* of opinions, but simply the working upon the brain by steady repetitions, and by "hammering" a certain opinion into the reader's mind. That is why the periodical appearance of the Press is of importance and not its liberty. The newspapers of fascistic Italy as well as those of bolshevistic Russia are "Press", though they are by no means free since they spread specific opinions. The very task of the Press is to work in such a way upon the single reader that his tendency, disposition and conviction is transformed into a *decision*. Eckardt joined Brinkmann in criticizing the prevalence of the "Press-departments" and he gave—as it seems to us—a very good journalistic reason for his criticism too. The reader, he said, is not interested in the organisation of the big concerns, which the papers are usually informed about; he would rather hear something about the private life of the founder of the concern or its head manager. For the Press, it is the individual, and to-day the collective, too, which is of central importance.

THE climax of the discussion was reached when Professor Karl Schmitt interpreted the present neutrality of the World Press—including radio—Press being considered as a technical apparatus—differently from the two speakers. Being somewhat pessimistic as to culture, he, whilst not denying the possibility of a new leading mental aristocracy altogether, prefers to draw another conclusion from this neutrality, seeing in it a temporary armistice. Press and Radio, the apparatus of public opinion, are just like public administration, neutral. That means: it will serve the ends of that party which, in the battle for power, will be victorious.

THE following two days were devoted to the discussions of the sub-groups. Whilst the orators of the first day seemed to forget that they were speaking as " sociologists " treating a concrete subject with real contents, the debaters of the following discussions tried to formulate the conception of science and methods of " sociological " research abstractly, and they got no farther than a barren conception of classification. The sub-group for " Methodology " in particular represented that kind of abstract sociology, which is only known in Germany, and it is a duty to warn mankind against its dulness. It is the aim of this kind of sociologist to normalize all possible relations between men. Their methods are the accumulation of conceptions which are supposed to be schemes for classification but which convey no clear idea of the matter to be classified. Their result is—a complete failure.

IN the same way, everything that was said about " Sociology of Art " was limited entirely to methodological consideration. Even Tönnies, who is the first scholar who, in Germany, has practiced Sociology in the concrete sense of the western nations, England and France, confined his speech to mere methodological questions. His aim, however, was, to persuade the pure methodologists to occupy themselves with the facts themselves and to pursue research work in facts. For this reason he had to speak to them in their own language. He called the kind of research which he is demanding, and which he declares the essential presupposition of sociological speculations, " Sociography."

SPEAKING about the history of science he said a few very interesting things. He pointed out that Sociology to-day is a product of a science that, during the 17th and 18th century, was called " Statistics." The latter, having resolutely turned into a purely mathematical and therefore abstract discipline, is not acknowledged by Sociology as its " mother science." But in Germany Sociology has become an abstract, *i.e.*, conceptional science. The territory of facts has been very much neglected. Professor Tönnies urged sociology and its scholars to study statistical figures thoroughly and to make use of their results in a concrete way.

DR. ADOLF CASPARY.

ANNUAL REPORTS OF THE INSTITUTE OF SOCIOLOGY: Read at the Annual Reunion and Conference, November 1st, 1930.

SECRETARY'S REPORT.

FOLLOWING on the amalgamation of the Sociological Society with Le Play House, which I reported at the last Annual Conference, the constitution of the Institute of Sociology was confirmed by members at the Annual Meeting. This report covers, therefore, the first year's work of the newly-constituted Institute of Sociology. This reorganisation has, as can well be imagined, entailed many months' work, but the unquestionable advantage, both from the point of view of membership and of appeal to the public, of one organisation is already felt. Only this brief reference to what, to those closely

connected, with the House is a very great step forward can be made here. But into this first year comes the great loss, by death in June last, of Mr. Victor Branford, who, with the late Mrs. Branford, founded the House, and gave the building in which the Institute has its offices. This loss will be known to all members and friends of the House. Some will have heard Mr. Ratcliffe's tribute at the Annual Dinner, and it is not my province, neither is this the place, to make more than a passing regretful reference to his death.

ENQUIRIES, both through correspondence and even more through personal interviews, have increased a great deal in the last year, and the contacts, particularly those through Exhibitions of Survey material and the Easter Field Study Meeting, have led to an increase of about 50 new members, and greater requests for assistance with enquiries into social problems have been made in the last year. The whole " standard " of enquiries, if the word may be used, seems to have risen steadily and everything points quite clearly to the definitely sound status of the Institute as a centre of information, and its increased use as such.

STUDENTS from London Colleges and Groups of workers visit the Institute continually. Professor Andrewes has again brought his Group of Students of Economics from U.S.A. Lectures and practical assistance have been given to individuals and Groups too numerous to mention. Several London Meetings have been held: Mr. Branford gave a lantern lecture, " A Synoptic View of Westminster "; Professor Geddes gave a series of Tuesday afternoon meetings in July and August on " Contemporary Social Evolution." The representation of the Institute at Conferences is increasingly asked for. Mr. Farquharson spoke at the Rotary International at Edinburgh on " Social Surveys," Mrs. Holman represented the Institute at the National Council of Women, and Mr. Fagg at the A.S.L.I.B. Conference. Mr. Farquharson has been invited to become a member of the Council of the British Institute of Social Service. A number of Local Councils of Social Service, Rural Community Councils, Rotary Clubs, and similar organisations have applied to the Institute for advice and help on Surveys, and are actively working out their problems on lines suggested from the Institute. Requests for information and suggestions for the teaching of geography, civics, and history, are being received daily from schools. A new leaflet giving a short statement of the history of the Institute, and combining with this a membership form, has just been published.

PERHAPS the item of propaganda which has increased most during the past year is the Exhibition of Survey material. There are generally sets on view in the Council Room, but the requests for loans from outside societies is almost greater than can be met. Material has been sent to the Kent Education Summer School at Folkestone, for the regional Survey course there, to meetings of the National Union of Teachers at Croydon, and to the Bedford and Sittingbourne Councils of Social Service. Apart from this there is a steadily increasing demand for quite extensive Exhibitions—to the newly-formed Hitchin District Regional Survey Association, to Conferences of S.E.U.S.S., at Portsmouth, Residential Settlements at Welwyn, A.S.L.I.B. at Oxford, the British Institute of Adult Education at Cambridge, and to the Meetings of the British Association at Bristol. An invitation has just been received for material to be sent to the Historical Association Meeting at Chester in January. A direct result of the Portsmouth Exhibition is that Portsmouth Training College has begun a Survey of Portsmouth and of a neighbouring village. The first material resulting from this is shown at this year's Exhibition.

FIELD STUDY MEETINGS. A most successful Field Study Meeting was held at Chichester at Easter, and a most interesting preliminary Survey of that town and its region made. The active support of the local authorities was accorded the Meeting and the Lord Bishop of Chichester and Mrs. Bell placed the old kitchen of the Palace at the disposal of the party, and took an immense interest in all that was done. Some of the material resulting from that Meeting is on exhibition at this Conference. As a further result the Bishop has asked the Institute to make a detailed report on the Chichester parishes. The Kent Education Committee again invited Mr. Farquharson to direct, with Mr. Hutchings and Miss Dymond, a Regional Survey Section at the Folkestone Summer School.

DEVELOPMENT SURVEYS. BRYNMAWR SURVEY, some of the diagrammatic results of which are shown at this Conference, is nearing completion. It is an outstanding example of a Survey of a town by a town, and the results have proved extremely useful and interesting.

THE SURVEY OF CHESTER is also nearing completion. Mr. Farquharson has spent a considerable time this year at Chester, and the co-ordinating of the information obtained will continue until the end of the year. At SITTINGBOURNE a group of local residents, many being members of the Rotary Club, have formed a Survey Committee and have begun working on a Survey of the town and its neighbourhood.

SOCIOLOGY GROUP. This Group, with Mr. Geoffrey Davies as Hon. Secretary and Leader, met each month until July. Different aspects of Sociology and certain Social subjects being discussed, and the Group, though small in numbers, is filling the need for an opportunity for full discussion. Meetings are to be resumed in the Autumn.

THE year has been an extremely busy, interesting, and progressive one. It is quite impossible to give more than an outline of the work done in the few minutes available for this report, but at the risk of exceeding those minutes, I must, in a few words, acknowledge the support which I have received from the Council, the help received from the several members of the Executive Committee, and the unfailing, loyal, work of my Assistants. Without these it would not be possible to undertake, much less to complete, the many activities of the Institute.

E. W. SPEAR, Secretary.

REPORT OF WORK DONE BY THE FOREIGN WORK COMMITTEE.

DURING the nine or ten years in which my colleagues and I have been engaged in building up, as part of Le Play House, this organisation for field studies outside the British Isles, we have, in no previous year, experienced such losses as in this year which is just closing. I refer, first, to the death of our beloved chief and dear friend, Mr. Victor Branford. The loss to the Institute as a whole has been, and will be still, publicly lamented by all those who have the opportunity of speaking of his life and work. The loss to my Committee is so serious that the most careful reorganisation may be necessary to enable us to carry on this branch of the work in which he took so deep and kindly an interest. Mr. Branford helped us in many ways. In 1925 he joined us in Rome, where a group of our members had been engaged in making studies of that city. Those days with him were an experience which few of us will ever forget. His interpretation of the facts we had collected, his method of teaching us how to approach city study,

was an opportunity which, alas, cannot now be repeated. It was a proud moment, when saying good-bye to him on the station in Rome, on his return to Switzerland for treatment in the Sanatorium which he had left for a few days in order to help us, he said " This experience with you all has been one of the richest in my personal history of city study, and worth while enduring the discomforts of travel with a temperature of 102°." This was typical of his life: he was always giving himself in service to his friends. Those of us who had the privilege of sharing his life and activities outside Le Play House, knew this side of his character so well and it explains why, perhaps, we leaned on him so much and depended on his constant guidance in all matters connected with the organisation and the development of our work. He has left us a fine example of courage and continued effort towards the fulfilment of his dreams of social advancement.

THE other loss to which I will refer very briefly, is that of our Chairman, Mr. George Morris. There is little need to touch on his Regional work for Le Play House. He is known as one of the pioneers in the Regional Survey movement, and for years not only has he given voluntary service. He has since 1925 been Chairman of our Committee and has thus rendered to us, and to Le Play House, valuable help. As a colleague in work I have much appreciated his co-operation, and the charm and honesty of his personality. At the invitation of Professor Geddes, Mr. Morris is now living in the College des Ecossais, Montpellier, and while working as a member of the staff there, he is carrying on the survey of Montpellier, with such help as we are able to send him from time to time.

" Every cloud," we are told, " has a silver lining," and the loss of Mr. Morris as Chairman is, in a measure, compensated by the fact that Professor Fawcett has taken his place. We have, so far, had only one chance of meeting Professor Fawcett as Chairman.

IN regard to the activities of the year: at Christmas we had a group in Montpellier carrying on the survey under the leadership of Mr. Morris, with Miss Preedy as hostess. The Easter vacation was a very full one, as we had three groups abroad. A group of 31 visited North Africa. We had Professor J. Holland Rose, of Cambridge, and Mr. Ellerton, of the Department of Civic Design, Liverpool University, as leaders, and I was hostess and responsible for the carrying through of the meeting. The British Consul met us on our arrival at our hotel in Algiers and brought with him Professors from the University, archæologists and others. They kindly lectured to us on various aspects of the history and life of the part of the country we were going to journey over. Some time was given to the study of the city of Algiers and its museums. Before leaving the city the Governor-General of Algiers received our group at the Palace, and we were thus afforded an opportunity of meeting many important Europeans: We journeyed in stages down to Touggourt in the Sahara. While there we made a study of this small oasis. If you will trouble to look at the material in the Exhibition you will see the commencements of what will, when the work is completed, be an interesting study of a typical oasis town.

A FURTHER group went to Carnac under the leadership of Dr. Given, with Miss Kyle as hostess. The studies commenced by those which visited that Region in 1924 formed the basis of the work and were extended, and the material brought up to date.

MISS WATKINS and Mr. Martin Briggs took a group of 20 to Holland, and interesting studies in town planning and modern developments in architecture were made.

THE summer vacation was, like Easter, a very full one. We had four groups abroad. Under the leadership of Dr. Dudley Stamp, with Mr. Howard as leader of the vegetation group, and Miss Maplesden as leader of the social studies, and myself in charge, we went to Finland, the first time that country had been visited by a Le Play House group. This visit was in many ways quite an exceptional one, due to the large amount of personal hospitality we received at the hands of the many friends whom we made as we went along. It would, in fact, have been very easy to have succumbed to the pleasures offered us, and to have abandoned ourselves to the joys of life, apart from study. We, however, succeeded in keeping before our hosts and hostesses our determination to work, and one day in the local paper we discovered a report of which the following is a shortened translation :

" A GROUP of English Sociologists is visiting Finland and is now staying in Kuopio. Unlike the Finns who, when they go to a foreign country care much for Hotel life, these English really work. They rise early in the morning, take breakfast, and pack up sandwiches, &c., for which there is an English word ' lunch,' and go over to an island by boat. There they study the farms—measure up the cultivated ground, count the trees, and labour all day. They come back to Kuopio and take their dinner and afterwards lecture to each other and make maps until no time in the night."

ANOTHER group, 23 in number, went to the Dolomite country, Miss Watkins taking charge, and Miss Woods taking the leadership of the social group, and Miss Booker the leadership of the geographical studies. The centre chosen was St. Vigilio, and here with the co-operation of Fraulein Erlacher, they made an interesting study of the village and its immediate region.

MR. WINTER again gave generous co-operation during the summer. He took a group to the High Pyrenees, mainly for the study of botany. He had as his assistant, Mr. Dickenson, of the London University, and Miss Holloway acted as hostess to the group.

A DIFFICULTY arose this year in regard to the Students' meeting ; they, for various reasons, were unable to organise a meeting on the lines of previous years. The F.W.C. was able to assist them and Mr. Edwards and Miss Butcher took a party, 18 in all, to the Cantal.

IT would be impossible to name all those to whom we are indebted for help in connection with this work ; thanks are, however, recorded on behalf of all those who have acted as leaders, group leaders and hostesses, also to all voluntary workers in the office.

(Signed) MARGARET E. TATTON,
Director, Foreign Work Committee.

WE are asked to announce that the Rudolf Funke Prize will be awarded by the Institut für Weltwirtschaft und Seeverkehr of the University of Kiel for a thesis on the following subject :

THE INTERNATIONAL INTER-RELATIONSHIP OF ECONOMIC FLUCTUATIONS.

" The thesis should trace the development of Economic Fluctuations with typical examples from the beginning of the 19th century to the present day with a view to ascertaining whether the economic fluctuations of various countries coincide, or not, in time, intensity and otherwise—and if so, to what extent. In this connection, not only the various periods in the development of capitalism, but also the relations existing between different branches of economic life (*e.g.* manufactures, raw materials, agriculture) are to be taken into consideration. An historical-theoretical analysis of

demonstrable unilateral or mutual influences is to be combined with this empirical description. At the same time the author is to show the different typical forms in which these fluctuations spread over the world. He is to explain the part played by psychical and material factors during this process (*e.g.* speculation, technical inventions, migrations, foreign trade, movements of capital). The general problems of the Theory of Economic Fluctuations are not to be placed in the foreground; the author, however, should examine to what extent his own particular theory of the international inter-relationship of economic fluctuations agrees with the general Theory of Economic Fluctuations."

For further information apply to the Secretary of the Institut für Weltwirtschaft und Seeverkehr of the University of Kiel.

Building in the Country.*

In England it is the relation of architecture to vegetation, particularly forest trees, which generally makes or mars both the Rustic and Urban Scene. The English countryside, in oft-quoted words, is "a *green* and pleasant land." So fertile is the soil, so fructifying the climate which we abuse, that whether in native woodland or cultivated field the face of the land is everywhere beautiful in restful colour and graceful forms of growth. The old saying that "God made the Country" is true not only of the wild but of the cultivated field, where nature flourishes more abundantly. But cultivation is followed by construction, and amidst vegetation the insistent rectilinear forms brought in by the hand of Man are focal and salient in the view; field and woodland are relegated to the background of the picture. An architectural gem, as the village church of pre-Reformation times, adorns the agricultural landscape which is its foil and setting. An architectural horror, is unfortunately equally focal; the eye can only be diverted to the less dominant forms of natural growth by an exercise of will, spontaneity is lost and beauty fades. Our ancient churches were built when ecclesiastical bodies had great surplus wealth, but to-day the aspect of the countryside is largely dependent upon domestic architecture designed on an economic basis. As the verdant country is itself beautiful it is sufficient if our house takes its place quietly in the landscape. The lines of a thatched roof are harmonious in an indulating and wooded landscape. It is not, however, necessary to imitate natural lines if the tone and colour of a building suits the prevailing green colour of our countryside. White-washed walls, as those of the cob cottages of Devon, are always harmonious, and the grey oolite also, while the buff-coloured oolite characteristic of the Cotswolds is truly decorative amidst the vegetation of early Spring. The choice of tint in red brick and tile, however, requires care. Red and green exhibit extreme contrast in colour, and as the green of the landscape is determined by Nature we must choose red brick and tile of such subdued tint that the total contrast of tone and colour with the verdant surrounding shall not be staring. The brick-and-tile houses erected since the War by qualified architects provide many perfect examples. Their redness is qualified by a brown tinge, and brown is harmonious with the green of vegetation. Thus the new houses take their place quietly in the landscape even on sunny days, and yet when the sky is overcast, relieve the monotony of a green expanse. But side by side with these are built villas and bungalows which out-stare even the efforts of late Victorian times. The difficulty experienced in arresting this deplorable practice is due to the fact that the uneducated

*Extract from The Æsthetic Relation of Town and Country in Regional Planning, a paper read at the British Association Meeting, 1930, by Vaughan Cornish, D.Sc.

eye finds nothing to look at in quiet decoration and only begins to take notice when attention is attracted by a loud call, such as that of white-painted wood-work against bright brick red or the diagonal pattern of the pink asbestos tile. Nearly a century has passed since Wordsworth, recognising the important truth that tastes can be accounted for, pointed out that the preference for violent contrasts in rural scenery is due to " want of practice." There will be no taste for such crudities when æsthetics has its proper place in our curriculum. And, Ladies and Gentlemen, let me declare my faith that when we make æsthetics a fundamental part of our educational system we shall become a happier nation than we are to-day.

MEANWHILE the aspect of the countryside for generations to come will be largely determined by the kind of building which is approved by the present generation, and we have therefore to consider what can be done to bring about an immediate change of fashion. Now we know that every woman exercises the critical faculty in all that relates to the scheme of tone and colour for the interior furnishings of the house, applying the knowledge gained in the study of dress, and I suggest that if this interest in tone and colour be extended to the requirements of harmony between house and landscape an important step will be taken towards the preservation of the countryside.

NEW DELHI: THE ARCHITECTURAL REVIEW: Vol. LXIX, No. 410. January, 1931. (2s. 6d. net.)

THE SOCIOLOGICAL REVIEW receives with great pleasure this beautifully-produced and illustrated account of the new official buildings in Delhi, and of their immediate surroundings. Written in a fluent, humorous, and engaging style, it is almost as easily readable by a layman as by an architect: even those who do not read can use the pictures to obtain a glimpse of the scale and style of Viceroy's House, Secretariats, and Council Chamber. The social student will note with interest the position of the last named building in the scheme, and will contrast with some misgiving the whole clean well-ordered plan with the irregular, unlovely, but more vital growth at Westminster. He will also ponder the author's generous judgment on Sir Edwin Lutyens' work, and feel compelled—will he not ?—to ask *on what plane* that able architect " has accomplished a fusion between East and West."

THE GUIDE TO CURRENT OFFICIAL STATISTICS.

THIS consists not only of an annual catalogue of official publications containing statistics, but also of a detailed index to their contents, arranged under subject headings in such a manner that the nature of the information available on any topic can be ascertained with ease and celerity.

VOLUME EIGHT of the Guide (price 1s. net, post free 1s. 5d., pp. 316) has just been issued from H.M. Stationery Office.

THE Proprietors of THE SEARCH are offering a prize for an article on " The Greatest Contribution to Truth in the 20th Century " in the fields of Religion, Philosophy, Science, Literature or Art.

FULL particulars from the Editors, 53, Bassett Road, W.10.

BOOKS RECEIVED.

Baker (R. St. B.). THE BROTHERHOOD OF THE TREES. Figurehead, 1930. (2s. 6d. net.)

Bellerby (J. R.). A CONTRIBUTIVE SOCIETY. Educational Services, 1931. (7s. 6d. net.)

Bready (J. Wesley). DR. BARNADO. Allen & Unwin, 1930. (7s. 6d. net.)

Briffault (R.). SIN AND SEX. Allen & Unwin, 1931. (7s. 6d. net.)

Cole (G. D. H.). LIFE OF ROBERT OWEN. Macmillan, 1930. (12s. 6d. net.)

Cooley (C. H.). SOCIOLOGICAL THEORY AND SOCIAL RESEARCH. Holt, 1930. ($3.00.)

Cornish (Vaughan). NATIONAL PARKS. Sifton Praed & Co. Ltd., 1930.

Das (Rajani Kanta). INDUSTRIAL EFFICIENCY OF INDIA. King, 1930. (8s. 6d. net.)

Davies (S. P.). SOCIAL CONTROL OF THE MENTALLY DEFICIENT. Constable, 1930. (13s. net.)

Davis (R. H.). MENTALITY OF ORPHANS. Badger, Boston, 1930. ($5.00.)

Ewen (B. C.). SOCIAL PSYCHOLOGY. Macmillan, 1929. (10s. net.)

Flügel (J. C.). PSYCHOLOGY OF CLOTHES. Hogarth Press, 1930. (21s.)

Gaskell (G. A.). A NEW THEORY OF HEREDITY. C. W. Daniel, 1931. (2s. 6d. net.)

Hallis (F.). CORPORATE PERSONALITY. Oxford University Press, 1930. (17s. 6d. net.)

Hammond (J. L. & B.). THE AGE OF THE CHARTISTS. Longmans, 1930. (12s. 6d. net.)

Hrdlička (Aleš). THE SKELETAL REMAINS OF EARLY MAN. Smithsonian Institution, 1930.

Johnson (Charles S.). THE NEGRO IN AMERICAN CIVILISATION. Constable, 1931. (20s. net.)

Kerner (R. J.). SOCIAL SCIENCES IN THE BALKANS AND IN TURKEY. University of California Press, 1930. (7s. net.)

Kiddier (W.). THE OLD TRADE UNIONS. Allen & Unwin, 1930. (7s. 6d. net.)

Kyung Durk Har. SOCIAL LAWS. University of N. Carolina Press. (Oxford University Press), 1930. (18s. net.)

Lange (Johannes). CRIME AS DESTINY. Allen & Unwin, 1931. (6s.)

Lundberg (G. A.), Bain (R.), and Anderson (N.), Editors. TRENDS IN AMERICAN SOCIOLOGY. Harpers, 1929. ($3.00.)

McClenahan (B. A.). THE CHANGING URBAN NEIGHBOURHOOD. University of S. California, 1929. ($2.00.)

May (Geoffrey). SOCIAL CONTROL OF SEX EXPRESSION. Allen & Unwin, 1930. (12s. 6d. net.)

Odum (H. W.). AN AMERICAN EPOCH. Holt, 1930. ($3.50.)

Pankhurst (E. Sylvia). THE SUFFRAGETTE MOVEMENT. Longmans, 1931. (21s. net.)

Parkes (S. W.). THE JEW AND HIS NEIGHBOUR. Student Christian Movement Press, 1930. (5s. net.)

Pearse (I. H.) and Williamson (G. S.). THE CASE FOR ACTION. Faber & Faber, 1931. (5s. net.)

Place (Francis). ILLUSTRATIONS AND PROOFS OF THE PRINCIPLE OF POPULATION. Allen & Unwin, 1930. (12s. 6d. net.)

Rhyne (J. S.). SOME SOUTHERN COTTON MILL WORKERS AND THEIR VILLAGES. University of North Carolina Press, 1930. ($2.50.)

Rice (S. A.). STATISTICS IN SOCIAL STUDIES. University of Pennsylvania (Oxford University Press), 1930. (12s. 6d. net.)

Richmond (Mary E.). THE LONG VIEW. Russell Sage Foundation, 1930. ($3.00.)

Schneider (H. W.). THE PURITAN MIND. Constable, 1931. (18s. net.)

Shaw (Clifford R.). DELINQUENCY AREAS. University of Chicago Press (Cambridge University Press), 1929. (18s. net.)

Smith (G. Elliott). THE SIGNIFICANCE OF THE PEKING MAN. Oliver & Boyd, 1931. (6d. net.)

Smith (Sydney). ALCOHOL AND BEHAVIOUR. Oliver & Boyd, 1930. (6d. net.)

Sorokin (P.), Zimmerman (C. C.), and Galpin (C. S.). A SYSTEMATIC SOURCE BOOK IN RURAL SOCIOLOGY. University of Minnesota Press. Vol. I., 1930. ($6.50 the single Vol.)

Spencer (M.) and Hewish (—), Editors. FELLOWSHIP: PRINCIPLES AND PRACTICE. Allen & Unwin, 1930. (7s. 6d. net.)

Stern (B. J.). LEWIS HENRY MORGAN. University of Chicago Press (Cambridge University Press), 1931. (11s. 6d. net.)

Surgeon (A.). ESSAYS AND ADDRESS. H. K. Lewis, 1930. (10s. 6d. net.)

Thompson (W. Harding). CORNWALL: A SURVEY. University of London Press, 1930. (17s. 6d.)

Wallis (W. D.). CULTURE AND PROGRESS. McGraw Hill Publishing Co. Ltd., 1930. (25s. net.)

Wisner (Elizabeth). PUBLIC WELFARE ADMINISTRATION IN LOUISIANA. University of Chicago Press. (Cambridge University Press), 1930. (13s. 6d. net.)

Worts (F. R.). WORK, WEALTH AND GOVERNMENT IN ENGLAND. Heinemann, 1930.

Young (Kimball). SOCIAL PSYCHOLOGY. Crofts & Co., New York, 1930. ($4.00.)

Zink (Harold). CITY BOSSES IN THE UNITED STATES. Duke University Press. (Cambridge University Press), 1930. (18s. net.)

ANNUAL REPORT OF THE SMITHSONIAN INSTITUTION, 1929. U.S. Govt. Printing Office, 1930.

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CHILD'S EMOTIONS (THE). Mid West Conference on Character and Development, Feb., 1930. Univ. Chicago Press. (Cambridge Univ. Press), 1930. (11s. 6d. net.)

SOCIAL WORK YEAR BOOK. Russell Sage Foundation, 1929. ($4.00.)

COLUMBIA UNIVERSITY STUDIES.

No. 325. Wagner (C. O.). CHURCH OF ENGLAND AND SOCIAL REFORM SINCE 1854. ($5.25.)

No. 327. Reed (L.). LABOUR PHILOSOPHY OF SAMUAL GOMPERS. ($3.00.)

No. 328. Lehmann (W. C.). ADAM FERGUSON AND THE BEGINNING OF MODERN SOCIOLOGY. ($4.25.)

No. 332. Woodward (J. L.). FOREIGN NEWS IN AMERICAN MORNING NEWSPAPERS. ($2.00.)

No. 333. Spengler (E. H.). LAND VALUES IN NEW YORK IN RELATION TO TRANSIT FACILITIES. ($3.00.)

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ACTA ACADEMIÆ ABOENSIS HUMANIORA . . . . . VI.
AMERICAN ECONOMIC REVIEW . . March, with supplement, June, September
AMERICAN JOURNAL OF SOCIOLOGY . . . . . January–November
ARCHIV FÜR KRIMINOLOGIE . . . . . February, April, June, August
ARCHIV FÜR SOZIALWISSENSCHAFT UND SOZIAL POLITIK 63 : 1, 2, 3 ; 64 : 1, 2
ASIATIC REVIEW . . . . . January, April, July, October
BULLETIN DE LA STATISTIQUE GÉNÉRALE DE LA FRANCE . . January–May, April–June, July–October, October–December
CHARITY ORGANISATION QUARTERLY . . . January, April, July, October
CHINESE ECONOMIC JOURNAL December, 1929, January, February ; May–October
COMMONWEALTH . . . . . January–October
COUNTRYMAN . January–March, April–June, July–September, October–December
ECONOMIC RECORD . . . . . November, 1929 ; May, 1930
ECONOMIC REVIEW (Kyoto University) . . December, 1929 ; July, 1930
ECONOMIC JOURNAL . . . . . June, Sept.
ECONOMICA . . . . . March, June
EUGENICS REVIEW . . . . . January, April, July, October

FORUM OF EDUCATION . . . . . November, 1929, February, June
GARDEN CITIES AND TOWN PLANNING . . . January, February, March, April–May, June, July, August, September, October
GEOGRAPHY . . . . . March, June, September
GEOGRAPHICAL REVIEW . . . . . January, April, July, October
HEALTH AND EMPIRE . . . . . December, 1929; June, 1930
HIGHWAY . . . . . September
HINDUSTAN REVIEW . January, February, March, April–June, July–August, September–October
INDIA . . . . . May–October
INTERNATIONAL LABOUR REVIEW . . . . . January–October
INTERNATIONAL REVIEW OF AGRICULTURE . . I.: January–August; II.: June–October; III.: January–October
JOURNAL OF ADULT EDUCATION . . . . . April, October
JOURNAL OF LONDON SOCIETY . . . . . January to October
JOURNAL OF KIEJO IMPERIAL UNIVERSITY SOCIAL SCIENCES ASSOCIATION Nos. 1, 2, 3, 1930
JOURNAL OF HEREDITY . October, November, December, January–July, August
JOURNAL OF NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY January, April, July, October
JOURNAL OF NEGRO HISTORY . . . . January, April, July, October
KÖLNER VIERTELJAHRSHEFTE FÜR SOZIOLOGIE . . . Vol. 8: Nos. 3, 4
LEAGUE OF NATIONS MONTHLY (Summary)
MAN . . . . . January to October
MILLGATE MONTHLY . . . . . July–October
MONIST . . . . . January, April, July, October
MUSÉE SOCIAL . . . . . January to October, November, December
NATIONAL MUNICIPAL REVIEW . January to June, August, September, October
NUOVI STUDI . . . . . November–December, 1929, January, February, March, April, May, August, September, October, 1930
OPEN COURT . . . . . January to October
POLITICAL SCIENCE QUARTERLY . . . . . March, June, September
PROGRESS . . January–March, April–June, July–September, October–December
QUARTERLY JOURNAL OF ECONOMICS . . . . February, May, August
QUEST . . . . . January, April, July
REVISTA DE DERECHOS Y CIENCIAS SOCIALES September, 1929, January–April, July–October, 1930
REVUE DES ETUDES CO-OPERATIVES . . . . . January–March
REVUE DE L'INSTITUT DE SOCIOLOGIE . October–December, 1929, January–March, April–June, July–September, October–December
REVUE INTERNATIONALE DE SOCIOLOGIE . November, 1929, to October, 1930
REVUE DE L'UNIVERSITÉ DE BRUXELLES . October, 1929, to October, 1930
RIVISTA INTERNAZIONALE . . . January, March, May, July, September
RIVISTA DI SOCIOLOGIA . . . . . January, March
SBORNIK (Czech Academy of Agric) . . Vol. IV.: 4; Vol. V.: 1, 2, 3, 4
SARATOV ACADEMY OF SCIENCES (Proceedings)
SCIENTIA . . . . . January to December
SCHOOL NATURE STUDY JOURNAL . . January, April, July, October
SCOTTISH GEOGRAPHICAL MAGAZINE . January, March, May, July, September
SOCIAL FORCES . . . . . March, June, October
SOCIAL SERVICE REVIEW . . . . . January to October
SOCIOLOGICKÁ REVUE . . . . . 1 and 2, 3 and 4
SOCIOLOGY AND SOCIAL RESEARCH . . . . March, April, 1930
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TARSADALOMTUDOMANY . . . . . January to September
UKRAINA . . . . . 1929: 2 issues
VESTNIK (Bulletin of the Czech Academy of Agriculture) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
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VIERTELJAHRSCHRIFT FÜR SOZIAL-UND WIRTSCHAFTSGESCHICHTE . Vol. 22: 3, 4 Vol. 23: 1, 2, 3
V.O.K.S. . . . . January–February, March, April No. 8–10
WELTWIRTSCHAFTLICHES ARCHIV . . . . . April, July, October
ZEITSCHRIFT FUR VÖLKERPSYCHOLOGIE UND SOCIOLOGIE March, June, September